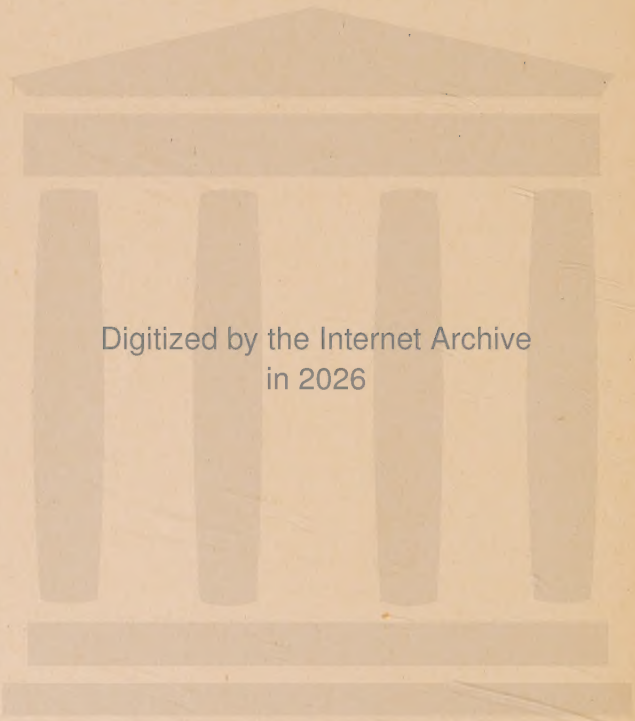
READING ACTIVITIES *IN THE* PRIMARY GRADES

STORM *AND* SMITH

Jean L. Stephens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READING ACTIVITIES IN THE PRIMARY GRADES

BY

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PREFACE

This book is the result of many years of experience by the authors as teachers of reading in the primary grades, as critics in normal schools, as writers of children's textbooks in reading, and as instructors of classes in the methods of teaching reading. During the past year the material was used in mimeographed form by the authors' university classes in kindergarten-primary education.

The primary purpose of this book is to present practical information and methods of procedure in such form that both teachers and supervisors will find it a helpful guide in the study of the problems of the reading class. The study has been purposely limited in scope to the primary grades in order that the suggestions devoted to specific problems involved in the teaching of reading in these grades may have ample space for development. It is believed that the book will not only function as a text for use in teachers' training classes but will also serve a useful purpose for independent study in teachers' reading circles and similar organizations.

For assistance in criticizing the manuscript grateful acknowledgment is made to Dr. W. S. Gray, Dean of the School of Education, The University of Chicago, and to Alice Temple, Chairman of the Department of Kindergarten-Primary Education, The University of Chicago. Acknowledgment is due Harry O. Gillet, Principal of the Elementary School, The University of Chicago, for permission to use the records and book lists of the Elementary School. The following teachers of the

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Special acknowledgment is made to Dean Gray for preparing the introduction.

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GRACE E. STORM
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INTRODUCTION

There have been notable changes during recent years in the content of professional books for teachers.

Two decades ago most of the books relating to the teaching of reading were mere records of the teaching experiences of the authors or descriptions of methods and devices which they had observed. Such books failed to provide permanent help because they presented no basic philosophy, fundamental principles, or scientific evidence to support the recommendations or suggestions offered.

With the development of a science of education, numerous professional books presenting the results of scientific studies and scholarly discussions of the psychology of reading were published. Many of these were very helpful to advanced students of reading problems, but they failed, more or less completely, to answer the questions or to satisfy the needs of a large majority of classroom teachers. Furthermore, most of them were more or less general and abstract. As a result, teachers of limited training were unable to read them with understanding and to apply the principles discussed to practical classroom situations.

A third type of professional book on reading has been published recently in large numbers; it attempts to interpret to teachers in simple terms the results of scientific studies of reading and to illustrate valid principles of teaching with numerous examples. Books of this type have met with reasonable success, but with the serious limitation that most of them have attempted to discuss

within limited space the problems of teaching reading in all grades. Consequently the problems at any particular level, such as the primary grades, the middle grades, or the upper grades, have been treated too briefly to satisfy the needs of the teachers. As a result there has been an insistent and growing demand during the last few years for more detailed discussions of reading problems at the various grade levels.

Miss Storm and Miss Smith have been among the first authors to recognize this need and to provide a textbook on reading for the teachers of the kindergarten and primary grades. Not only have they presented clearly fundamental principles relating to the teaching of reading, but they have illustrated those principles with numerous concrete examples selected from the best classroom practices. The material is simply and clearly written, and hence can be easily read and interpreted. It thus makes available to primary teachers in all types of schools a practical discussion of valid principles and progressive practices in teaching reading.

WILLIAM SCOTT GRAY
Dean of the College of Education,
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READING ACTIVITIES IN THE PRIMARY GRADES

BACKGROUND

CHAPTER I

THE HISTORY OF READING METHODS AND CONTENT

Outline

I. The history of reading methods
   A. Three stages of reading methods
II. The history of reading content
   A. No demand for vernacular schools in medieval Europe
   B. The Protestant Reformation
   C. Earliest schools in America
   D. The hornbook
   E. The primer
   F. Noah Webster's Blue-backed Speller, 1783
   G. McGuffey's Readers, 1840–1880
III. Summary

Section I. The History of Reading Methods

Three stages of reading methods. To appreciate fully the progressive reading instruction of today, one needs to summarize the development of the teaching of reading from earliest times. We find that reading method went through three successive stages before it reached the place which it now occupies. These stages are

The alphabetic method
The sound method
The word method

The alphabetic method. The alphabetic method was the earliest method of learning to read. The ABC method, as it was called, was used in Greek and Roman times and has persisted until fairly recent years. By this method the child had to name the letters of the alphabet and

combine them into words. Because of the various devices which were used to help pupils over this difficult stage, we know that they did not find it easy to read by this method. One wealthy Greek bought twenty-four slaves to act as playmates for his little son, whom he considered stupid because he could not remember the letters. The father named each slave for a letter in the alphabet, thus assuming that it would be easy for his son to memorize the letters by knowing the names of the slaves.

The "gingerbread" method, which came to be very popular, is described in verse by Matthew Prior:

> To Master John the English maid
> A hornbook gives of gingerbread,
> And that the child may learn the better,
> As he can name he eats the letter.
> Proceeding thus with vast delight
> He spells and gnaws from left to right.

In Germany a school baker was provided who should bake the letters for the children's breakfast. It was not thought necessary for the children to eat the alphabet for a longer period than three weeks, for by that time even the most backward ones would know their letters.

The Puritans brought with them to America the hornbook and the primer, both of which contained the letters of the alphabet. The primer put emphasis on the alphabet from the point of view of pictured characters and events in rime. On one side of the picture was the letter, and on the other was the verse, in which occurred an outstanding word beginning with that particular letter.

> A In Adam's fall
> We sinned all.
>
> B Thy Life to mend
> This Book attend.

C The Cat doth play
And after slay.

D A Dog will bite
A thief at night.

P Peter denied
His Lord and cried.

R Young pious Ruth
Left all for truth.

Z Zaccheus he
Did climb the tree
Our Lord to see.

The alphabet was also stressed in "An Alphabet of Lessons for Youth," made up of texts from the Bible and other sources.

A A wise son maketh a glad father, but a foolish son is the heaviness of his mother.

B Better is little with the fear of the Lord than great treasure and trouble therewith.

When Webster's Blue-backed Speller was published in 1783 emphasis was still upon spelling, which meant that the children learned to read by "spelling the same." Because of the wide use of the Webster speller for fifty or more years, the spelling content and the reading content were much the same. Even today the schools in some parts of our country have not changed from the old ABC method.

The sound method. In 1534 a German by the name of Ickelsamer declared that the sounds of the letters should be used instead of the names. He went a step further, and insisted that not only should the sound of the letter

be taught but also the object or the animal which could suggest the sound of the letter; as, the dog that growled *r*, the sparrow that twittered *z*, and, for *m*, the cow that said *moo*. The sound method had advocates in France and Switzerland. Among these was Pestalozzi, who wished the children to know the sounds and names of the letters both singly and in syllables. The sound method did not gain any headway in our country until the latter part of the nineteenth century.

The word method. The first educational reform of the nineteenth century in regard to reading was made by Horace Mann, who was secretary of the Board of Education of Massachusetts in 1838. In his second annual report to the board Mann took up the matter of teaching reading in the elementary schools of Massachusetts. When we read what he wrote we are surprised to see how far into the future his ideas projected; for they are still discussed today in connection with reading, though they are couched in somewhat different phraseology. He began by saying that he had been taking some pains to find out how far reading in the schools of Massachusetts was an exercise of the mind in thinking and feeling and how far it was "a barren action of the organs of speech upon the atmosphere." He found that eleven twelfths of all children in the reading classes did not understand the meaning of the words they read; hence the author's ideas and feelings, which it was intended to convey to the reader's mind, were still resting in the author's intention.

Mann went on to criticize severely the cause of this state of affairs,—namely, the old alphabetic method. He said that the big question was whether to teach the letters separately, as in the alphabet, before the words, or whether short and familiar words should be taught before letters. He gives this interesting discussion:

During the first year of a child's life, he perceives, thinks, and acquires something of a store of ideas, without any reference to words or letters. After this the wonderful faculty of language begins to develop itself. Children then utter words, — the names of objects around them, — as whole sounds, and without any conception of the letters of which those words are composed. In speaking the word "apple," for instance, young children think no more of the Roman letters which spell it than in eating the fruit, they think of the chemical ingredients — the oxygen, hydrogen, and carbon which compose it. Hence presenting them with the alphabet is giving them what they never saw, heard or thought of before. It is as new as algebra and to the eye not very unlike it. But printed names of known things are the signs of sounds which their ears have been accustomed to hear, and their organs of speech to utter, and which may excite agreeable feelings and associations by reminding them of the object named. When put to learning the names of the alphabet first the child has no acquaintance with them, either with the eye, the ear, the tongue, or the mind; but if put to learning familiar words first he already knows them by the ear, the tongue, and the mind, while his eye only is unacquainted with them. It can hardly be doubted, therefore, that a child would learn to name 26 familiar words much sooner than the unknown, unheard, and unthought-of letters of the alphabet.[1]

The reforms that followed the criticisms of Horace Mann led to the abandonment of the ABC method in favor of the word method, which most progressive schools had adopted by 1880. The next important step in instruction in reading was the teaching of phrases and simple sentences instead of words. The sentence method did not come into general use until 1885 or 1890. At the present time most modern methods present a combination of the sentence, word, phrase, and phonic methods.

[1] Annual Reports of the Secretary of the Board of Education of Massachusetts for the Years 1837–1838. Lothrop, Lee & Shepard Co., Boston, 1891.

Section II. The History of Reading Content

No demand for vernacular schools in medieval Europe. To gain a fuller understanding of the development of reading content in our own country, we must know something of conditions in Europe which were incident to the Reformation and which, in turn, led to the establishment of schools conducted in the language of the country. The only vernacular schools in Europe during the later Middle Ages were those established for guilds and tradesmen in cities. People generally lived on farms, and there was no wide demand for vernacular schools. Europe then was largely Catholic, and that church taught its doctrines for the most part through sermons. Manuscript books were few and costly, and thus there was little opportunity for the layman to learn to read.

The Protestant Reformation. The Protestant Reformation, which took place in the sixteenth century, was led by Martin Luther and John Calvin. Martin Luther (1483–1546) is known as the leader of the German Reformation. He taught that salvation is secured not through the sacraments of the Church but through direct appeal to God and that forgiveness of sins can be obtained not through the sacrament of penance but only through faith in Christ. These statements caused great turmoil among the German people. To help them to become more conversant with the Bible, Luther published in 1522 a new translation of the New Testament in German. A few years later he published some catechisms to explain better the form of Christianity which he hoped would prevail. John Calvin (1509–1564) spread the new Reformation ideas in France and Switzerland. The doctrines of Calvin spread rapidly to Holland, Scotland, and England, and thence to Massachusetts. For this reason many of our

early colonists brought with them to America the theory of religion as taught by Calvin. His followers, the Calvinists, as they called themselves, wished to remove from the English Church most of the ceremonies which had remained in that church from the Catholic ritual and of which they did not approve. Since they wished to purify the English Church, these colonists came to be known as Puritans. They were oppressed in many ways by the rulers of England, but especially by Charles I. They were heavily fined, many had their houses and goods confiscated, and still others were thrown into prison. Most of the oppression took place between the years 1629 and 1640. It is important for us to remember this period, because it was during these years that many of our colonies were settled by the English.

The leaders of the Reformation thought that the Bible should be widely printed in the language of the people or in the vernacular, since they believed that in this way a deeper spiritual life might be obtained. Both Luther and Calvin maintained that the Bible should be "the chief and most frequently used reading book, both in primary and high schools; and the very young should be kept in the gospels."

The invention of printing (1423–1480) developed a very wide new reading public, and cheap books in the vernacular based on Reformation ideas were multiplied a thousandfold as compared with the costly manuscript books of earlier years. Luther urged that elementary schools be multiplied in Germany and England; but his appeal was in vain as to England, for nothing was done in that country until the nineteenth century.

Earliest schools in America. The early English Puritans began making their homes in America in 1620. At first they had no schools for teaching the children to read.

Before 1647 the only provisions made for schooling were in a few of the towns, and these were purely voluntary. Then, however, the General Court of Massachusetts passed the famous law of 1647, by which was conveyed to future generations the germ of our great American school system. This law required all the towns to maintain schools. Listen to the wording of this old law; for the pioneers of Massachusetts were not only makers of educational history, but writers of excellent English as well:

> It being one chief point of that old deluder, Satan, to keep men from the knowledge of the Scriptures, as in former times, by keeping them in an unknown tongue, so in these latter times, by persuading from the use of tongues, that so at last the true sense and meaning of the original might be clouded by false glosses of saint-seeming deceivers, that learning might not be buried in the grave of our fathers in church and commonwealth, the Lord assisting our endeavors, — It is therefore ordered that every township in this jurisdiction, after the Lord has increased them to the number of fifty householders, shall then forthwith appoint one within their town to reach all such children as shall resort to him to write and read.[1]

We have seen that the chief purpose of the law of 1647 was to teach the children to read so that they could read the Bible for themselves. The law represented a very narrow conception of education, and in Massachusetts ideas in literature, music, and science were just as narrow. Shakespeare was not read during the seventeenth century. The most popular book for adults was "The Day of Doom, or a Poetical Description of the Great and Last Judgement with a Short Discourse about Eternity," by Michael Wigglesworth, published in 1662. Another widely read piece of literature was "Practice of Piety,

[1] Quoted by S. C. Parker in "The History of Modern Elementary Education" (Ginn and Company, Boston, 1912), p. 60.

directing a Christian how to walke that he may please God," by Bishop Bayle. This book was so popular, even down to the beginning of the eighteenth century, that editions of it "tumbled headlong from the press so fast that the booksellers of the time became confused in attempting to number them."[1] According to the Puritans music and religion were not meant to go hand in hand, for singing was so uncommon in New England that the people knew only eight or ten tunes. The first Christmas spent in their new home might have had more of the Yuletide spirit had the Pilgrims sung some of the old English carols, but they went to the extreme and put aside all things which they felt in any way belonged to the Church of England. Such was the aversion to amusement or happiness of any sort that little Peregrine White, the baby born on the *Mayflower*, probably would have stiffened in horror if a rattle had been placed in his small hands. In science the Puritans had some erroneous beliefs: the earth was thought to be the center of the universe, birds were supposed to hibernate in winter in mud at the bottom of rivers and ponds, bleeding was the favorite remedy in medicine, and skin eruptions were to be cured by applying the charred remains of a toad.

We see that, although the Puritans were religious people, they really knew very little about anything except religion. Their law of 1647 included only reading and writing; and this remained unchanged until 1789, when arithmetic, the English language, orthography, and decent behavior were added to the curriculum. Since the Puritans thought that education had for its purpose the reading of the Bible, it is not surprising that religious books were used as reading texts. The chief textbooks

[1] Quoted by S. C. Parker in "The History of Modern Elementary Education," p. 67.

used in American elementary schools until about 1750–1800 consisted of the hornbook, the primer, the Testament and the Bible, and the spelling book.

The hornbook. The hornbook was not really a book, but a wooden paddle with a handle on one end. On the paddle was fastened a single sheet of paper covered with a thin layer of transparent horn, and on this were usually found the alphabet, the syllables *ab*, *eb*, *ib*, and so on, and the Lord's Prayer. Sometimes there was a string attached to the hornbook so that the child could wear it round his neck, and when he was free from his tasks at home he could read it.

The primer. The primer was originally a sort of manual of devotion in the English Church; it contained the Lord's Prayer, the Creed, the Ten Commandments, and the Psalms. Primers of this nature were used until about 1690, when the New England Primer was printed in Boston. Every boy and girl of school age in New England had to study this book. Benjamin Franklin printed edition after edition of the Primer. A copy of 1777 contained the following: the alphabet for beginners; syllables; spelling lessons of words arranged in groups of one, two, three, four, five, and six syllables; the Shorter Catechism and prayers for different occasions; religious verses; the selection entitled "Spiritual Milk for American Babies drawn out of the Breasts of Both Testaments for their Souls' Nourishment," by John Cotton; a woodcut of the Reverend John Rogers being burned at the stake, with two of the king's executioners standing by (the wife of John Rogers and her nine children are also witnesses of the sorrowful scene); the famous picture alphabet; the Lord's Prayer; the Creed; the Ten Commandments; and the books of the Bible. Catechism seemed to be a very important part of the New England

Primer. In one primer the questions and answers of the Shorter Catechism were as follows:

> What will be your condition in hell?
> I shall be dreadfully tormented.
> What company will be there?
> Legions of devils, and multitudes of sinners of the human race.
> Will company afford me any comfort in hell?
> It will not, but will probably increase my woes.
> If you should go to hell, how long would you continue there?
> For ever and ever.

The aim of the catechisms was to prepare children for afterlife. It seemed to be a difficult thing to teach the children of New England the proper way to die. The authors of many books of this period dwelt tenderly upon the wise and glorious deaths of children at the age of six or seven or ten. An early death in purity and virtue was a thing to be desired. No book shows this more clearly than the Reverend James Janeway's "Token of Children, being an Exact Account of the Conversion, Holy and Exemplary Lives and Joyous Deaths of Several Young Children." This book passed through edition after edition in England and New England. A selected passage tells us about little Elizabeth Butcher of Boston.

> When she was about two years old, as she lay in the cradle she would ask herself that question, What is my corrupt nature? and would make answer again to herself, It is empty of Grace, bent unto sin, and only to sin, and that continually.

It was her practice to carry her catechism or some other good book to bed with her, and in the morning she would be sitting up in bed reading before any of the family were awake. Such goodness could not last; and on the thirteenth of June, 1718, poor little Elizabeth departed this life, "being eight years and just eleven months old."

Imagine a child of today, with all the natural impulses and desires of a modern child, spending a Sunday afternoon memorizing such rimes as

> Though I am young, yet I may Die,
> And hasten to Eternity.

Noah Webster's Blue-backed Speller, 1783. Between 1740 and 1800 spellers gradually replaced primers. They also contained the alphabet, the Shorter Catechism, prayers, psalms, and words alphabetically arranged. After 1782 Webster's Blue-backed Speller came to be the most widely used text for primary schools. It differed from the early spellers in that it contained more secular and less religious material. The catechism, prayers, and creeds were omitted. It did contain, however, long lists of spelling words, miscellaneous selections, and the famous illustrated fables. Webster's speller tended to standardize English spelling and thus gave spelling a most important place in the curriculum. There were many spelling matches which were comparable in enthusiasm to the intercollegiate football game of today.

McGuffey's Readers, 1840–1880. The next most widely used texts that deserve mention are the readers written by McGuffey. These were used as textbooks for reading classes for forty or fifty years. They contained phrases, syllables, selections, and simple stories which were more interesting to children than any material written up to this time. McGuffey was the first to grade the material by actually trying it out on the children. He would call in the youngsters of the neighborhood and read a story to them. He placed the story in a reader intended for children of the age of those who had seemed interested in the material; if the language was too difficult he adapted it to the lower age level.

Now we can scarcely keep up with the readers that appear each year. Some are based on Mother Goose and other nursery rimes, some on fairy and folk tales, and some are composed of inane and disconnected sentences. The present tendency is toward the inclusion of factual and realistic material based upon the child's experiences in a natural environment.

Section III. Summary

As indicated in the first part of Chapter I, the development of the methods of teaching reading was traced through three successive stages, namely, the alphabetic method, the sound method, and the word method. We found that Horace Mann introduced a reform in our educational system when he criticized the A B C method, advocating in its place the adoption of the word method, which was used by many progressive schools as early as 1880. Reading at present is taught by a combination of the word, phonic, and sentence methods. The second part of the chapter dealt with the history of reading content and showed the influence exerted upon reading by the Protestant Reformation as exemplified by Luther and Calvin. The aim of reading in the earliest American schools was to teach children to read the Bible so that they would be saved from sin and Satan. Texts used in the early schools were the Hornbook, the Primer, and the Speller, the last named being replaced by McGuffey's Readers in 1840.

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CHAPTER II

READING ACTIVITIES IN SCHOOL AND SOCIAL LIFE

Outline

I. Purpose of this chapter
II. Reading not common before 1880
III. Rapid increase of reading
IV. Reading intimately tied up with all the subjects of the curriculum
V. Five important purposes of intelligent silent reading
VI. Summary

Section I. Purpose of this Chapter

The justification for including any subject in the curriculum depends upon the extent to which that subject prepares pupils to participate in life activities. If the training that it gives enables them to engage more effectively in desirable life activities and so to become better members of a unified and stable social life, then its inclusion is justified.[1] Instruction in reading should consider the reading experiences of children and adults both in school and in all social life.

Section II. Reading not Common before 1880

In 1880 some 17 per cent of our population could not read or write. Today the attitude of modern society is such that a percentage of illiteracy as high as that in 1880 is not to be tolerated, for any man today is ashamed

[1] Twenty-fourth Yearbook of the National Society for the Study of Education, Part I, p. 1.

to admit that he can neither read nor write. Our nation expects all its citizens to attend school long enough to become a part of the common social whole, which is held together by means of written and printed communication. Reading and writing are so closely related that we cannot consider one without taking into account the other.

If we take all the money paid for letter postage in 1843 and assume that it was spent for the cheapest letter that could be forwarded through the mails it will be found that the average letter-writing of each inhabitant of the United States during the full year amounted to less than four letters of one sheet each. This estimate is altogether extravagant, because the lowest letter postage of that date, namely six cents, would carry only one sheet of paper within a radius of thirty miles. If letters went more than thirty miles, or were made up of more than one sheet, they cost more, reaching a maximum at four hundred miles or more, when each sheet cost twenty-five cents. Letters sent at rates of postage higher than the minimum would reduce the average computed. It is fair to assume, therefore, that letter-writing in 1843 was not a common practice.

Other facts of the same import are as follows: In 1840 the revenue of the post office for all classes of mail was 27 cents per year for each inhabitant of the United States. This amount had not doubled in 1870, when it was 49 cents. It rose to the point in 1890 when it was 97 cents; in 1900 it was $1.34; and in 1910, $2.43. Not all of this was for letters, but the figures show that reading and writing are much more commonly used today than a generation ago.[1]

Section III. Rapid Increase of Reading

Reading is increasing with great rapidity. A survey of the number of newspapers in America and of the extent of their circulation is sufficient evidence that newspaper-

[1] C. H. Judd, "The Relation of School Expansion to Reading," *Elementary School Journal*, December, 1922, p. 256.

reading exceeds other types of reading. It is estimated that the daily circulation of newspapers is thirty-nine million. Magazines are next in importance in the scale; four periodicals have circulations of more than a million. Our public libraries have also added to the opportunities for reading; for free libraries have been established in most cities, and these, together with branch libraries, accommodate the major number of our reading population. Many of our public schools are establishing reading rooms and libraries. During the last twelve years the Chicago Public Library has seen the circulation of books increase more than 400 per cent.[1]

Section IV. Reading intimately tied up with All the Subjects of the Curriculum

Reading is the most important subject in the curriculum. It is the most fundamental, because nearly all the other subjects depend upon it as a source of information and clarification. During the first three school years of a child's life he is given instruction to enable him to read; after the third grade he is supposed to read well enough to get the thought from textbooks in history, geography, language, arithmetic, nature study, etc. These texts descend upon him in an ever-increasing number after the third year of school. We may express it in this way: In the primary grades the child learns to read; from then on he reads to learn. Unless he has mastered the mechanics of reading in the primary grades, — that is, unless he has become skilled in silent reading so that he can get the necessary amount of meaning from the printed page, — then he is sure to be overwhelmed with the amount of

[1] W. S. Gray, "The Importance of Intelligent Silent Reading," *Elementary School Journal* (January, 1924), Vol. XXIV.

reading which confronts him. He must read with sufficient rapidity and comprehension to enable him to understand the content of these various subjects. When he enters high school he meets with a still greater amount of material which must be mastered through the use of the reading tool. If he is unable to interpret the content, he falls behind; and again we are reminded that reading is a fundamental and important study tool.

We frequently hear this criticism of students by college professors: "He has not learned how to study." This is more frequently heard than "He does not take enough time for study." The pitiful case is the high-school or college student who reads over and over the numerous references for history or geography topics, and then, after lengthy periods of preparation and so-called application, is unable to grasp the important points of what he has read.

Gesell says that reading in the primary grades should be an illuminating accompaniment to all the other subjects in the curriculum.[1] During the early years of reading the child should think of reading as a means of explaining some of the interesting activities with which he comes in contact in school and outside of school. Reading should be carried on so that it is intimately tied up with community life, nature study, manual arts, literature, and civic ideals. If there is this close relationship between reading and the other subjects in the primary grades, there will be less danger of confusion in the intermediate grades, when the child meets informational reading in a slightly different and more condensed form from the kind he encountered in the primary grades.

[1] A. L. Gesell and B. C. Gesell, The Normal Child and Primary Education, p. 199. Ginn and Company, 1912.

Section V. Five Important Purposes of Intelligent Silent Reading

William S. Gray, in an article on "The Importance of Intelligent Silent Reading,"[1] sums up adult reading in terms of five important purposes:

Reading for general information
Reading for civic enlightenment
Reading in vocational activities
Reading to extend experiences
Reading for pleasure

Reading for general information. It is necessary for every adult to read to find out what is going on in his home and community.

Reading for civic enlightenment. Reading for civic enlightenment is a means of familiarizing adults with current events, significant social issues, community and national problems, and the like. Lincoln defined popular government as a "government of the people, by the people, and for the people." The success of a government such as ours is dependent upon the intelligence of the governing class. The people of the United States govern through their representatives, and our government is efficient only to the extent that the people are intelligent and well-informed. Surely, the ability to read is a very necessary qualification for citizenship. The following paragraphs summarize what needs to be said of this:

Illiteracy bears intimately upon many national problems. The government of the United States is a government by representation, and its integrity and effectiveness depend upon the intelligence of all the people. Intelligence rests mainly upon easy

[1] W. S. Gray, *Elementary School Journal* (January, 1924), Vol. XXIV, p. 259.

transfer of thought and information from one person to another by the printed page. Therefore any material increase in the number of those who cannot read affects quality of citizenship and the representative basis of government. In an illiterate community the sense of civic responsibility is at its lowest, and disease, social isolation, and industrial inefficiency are found in highest degree.

It is difficult for those who can read easily to form even a bare conception of the mental limitations of the illiterate, the near illiterate, and the nonreader. It is still harder to appreciate the material handicaps to earning a livelihood entailed by illiteracy. While illiteracy does not necessarily imply ignorance, it does predicate lack of information, comprehension, and understanding. It increases prejudice, suspicion, and passion, and diminishes mutual appreciation and power to coöperate; yet coöperation is the essence of modern civilization, and inability to coöperate is the basis of race hatred. So that illiteracy is clearly a just topic for national solicitude, and its eradication a proper subject for governmental action.[1]

Reading in vocational activities. Reading in vocational activities is a form of intelligent silent reading done in connection with practically every vocation and profession. Farmers, clerks, teachers, doctors, and housekeepers all agree that intelligent silent reading concerning their vocations is essential to success.

Reading to extend experiences. Reading to extend experiences may include history, biography, travel, adventure, drama, poetry, religion, art, science, and fiction. It may be known as that type of reading which we do in our leisure time, when we may choose the thing we like best to read. Mr. Bobbitt says that in order to fit ourselves into the complex life about us we must have an interest in human affairs. We can observe very little of

[1] W. Talbott, Adult Illiteracy, *Bulletin No. 55*, United States Bureau of Education, 1920, pp. 18–19.

the affairs of the world by direct observation or by listening to oral reports. It is a physical impossibility for us to travel to all parts of the world to carry on direct observation. To interpret the present we must know what has happened in the past, for the world in which we live is not bounded by the narrow limits of our own experience. Our religion, our laws, and our institutions can be revealed to us in their real significance only as we can understand what has gone before and led up to them. Since we cannot observe all these phases of past life directly or by oral reports, we must acquire the information by reading. Mr. Bobbitt emphasizes the importance of familiarizing the pupil with the world that lies beyond his community. He says:

> The best way for the individual to become acquainted with this world is to travel through it all, to observe men and women and their affairs in all parts of the world and under all sorts of conditions; to enter into the labors and other activities of men in these lands; to enter for a time into the occupations involved in the great world of human vocations; to participate in the civic and social activities of various peoples. . . . In the face of present demands for world understanding, cosmopolitan sympathies, and democratic vision of world problems, there is no type of training that is more needed.[1]

However, if we cannot travel physically to all interesting places and actually observe people living under different conditions from ourselves, we can travel in our imaginations through a wide reading of biography, travel, and geography.

Reading for pleasure. The bulk of the reading done to extend experience may be classified as reading for pleasure, although there are a great many people who feel that the greatest enjoyment afforded by reading is that gained

[1] Franklin Bobbitt, The Curriculum, chap. xviii. Houghton Mifflin Co., 1918.

from reading cheap detective stories — material that has nothing but an exciting plot to hold the interest.

The following poem sums up the advantages gained when the child is read to or when he reads for himself. The child who speaks might well be speaking of the experiences he gets from reading fascinating books of travel, history, and literature.

When Mother Reads Aloud

When Mother reads aloud, the past
  Seems real as every day;
I hear the tramp of armies vast,
I see the spears and lances cast,
  I join the thrilling fray;
Brave knights and ladies fair and proud
I meet, when Mother reads aloud.

When Mother reads aloud, far lands
Seem very near and true;
I cross the desert's gleaming sands,
Or hunt the jungle's prowling bands,
  Or sail the ocean blue;
Far heights, whose peaks the cold mists shroud,
I scale, when Mother reads aloud.

When Mother reads aloud, I long
For noble deeds to do —
To help the right, redress the wrong;
It seems so easy to be strong,
  So simple to be true.
Oh, thick and fast the visions crowd
My eyes, when Mother reads aloud.

Author Unknown

Section VI. Summary

The discussion at the beginning of the chapter shows that reading and writing are much more commonly used today than a generation ago, and reading especially is increasing with great rapidity. A survey of newspapers, magazines, and libraries indicates that this is true. The latter part of the chapter describes and discusses five important purposes of intelligent silent reading, which are as follows: reading for general information, reading for civic enlightenment, reading for vocational activities, reading to extend experiences, and reading for pleasure.

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CHAPTER III

SILENT AND ORAL READING

Outline

I. Influences which have brought about a new emphasis in instruction in reading
  A. Effect of social and economic conditions upon instruction in reading
    1. Effect of Colonial conditions upon reading
    2. Effect of Revolutionary conditions upon reading
    3. Effect of present conditions upon reading instruction
  B. Effect of scientific investigations upon instruction in reading
    1. Silent reading superior in speed
    2. Silent reading superior in comprehension
    3. School progress aided by intelligent reading
II. Oral reading: its place in modern instruction
  A. Social uses of oral reading
  B. The teaching values of oral reading
  C. Some exploded theories concerning the use of oral reading
  D. Relative amounts of oral and silent reading
III. The technique of teaching silent reading
  A. Mental attitude for reading
  B. Motive for reading
  C. Recreatory silent reading and work-type silent reading
  D. Varied silent-reading abilities
  E. Individual differences
  F. Work to increase comprehension
  G. Work to increase speed
IV. Summary

One of the most dynamic and far-reaching movements of recent years is that of placing an increasing emphasis upon silent reading. This new emphasis has met with ready response and rapid adoption by teachers everywhere. Oral reading still retains a place in the modern

reading program, but it has been dislodged from the supreme position which it held for many years as the chief instrument of instruction in reading. What has been responsible for this thoroughgoing reform? Oral reading has centuries of tradition behind it, and tradition is difficult to combat. Surely our pedagogical slumbers could never have been disturbed so violently by this new idea of silent reading had it not had its source in a combination of forces that were sound, impressive, and vital. Let us examine the causes that have contributed to this new emphasis in reading and see wherein their potency lies.

Section I. Influences which have brought about a New Emphasis in Instruction in Reading

A. Effect of Social and Economic Conditions upon Instruction in Reading

Effect of Colonial conditions upon reading. The successive social and economic conditions of our nation's growth are mirrored in the yellowing pages of our old readers and reflected in the traditional methods of teaching this subject.

Social needs met by oral reading. There was a great dearth of reading materials during the colonial period. There were no geographies, histories, storybooks, novels, newspapers, or magazines at that time. The Bible was the only book that the home libraries contained, and it and the New England Primer (which was of a religious nature) were the only textbooks found in schools. Consequently the only use to which reading was put during this period was that of reading the Word of God. Usually there was only one Bible in each family, and he who was able to read was enjoined to spend most of his evenings

and Sabbaths in reading the Scriptures orally to the uneducated members of his family and community. Hence oral reading met the needs of these people very well.

Oral reading taught in the schools. The method of teaching reading at that time was to a large extent simply one of rote memory, or learning the pages "by heart." This was usually accomplished through oral chanting in concert.

Effect of Revolutionary conditions upon reading. *Efforts to correct diversity of dialects.* As time passed on and different sections of the country were settled by various peoples, a wide diversity of dialects came into use. Oral reading was resorted to as the chief means of correcting this condition. Emphasis upon oral reading as a means of developing clear articulation and correct pronunciation received its first really great impetus when Noah Webster brought out his Blue-backed Speller, the first textbook prepared by an American author. Mr. Webster was gravely concerned because so many different dialects had sprung up in America. In describing the purpose of this book he said,

> To diffuse an uniformity and purity of language in America, to destroy provincial prejudices that originate in the trifling differences of dialect and produce reciprocal ridicule, to promote the interest of literature and the harmony of the United States, is the most earnest wish of the author.

Since the Blue-backed Speller was the most widely used textbook of the country for many years after the reign of the New England Primer, the emphasis upon oral reading as a means of promoting clear enunciation and pure pronunciation was well established when the Revolution brought as one of its incidental results an emphasis upon the eloquent oral reading of patriotic selections.

Social needs of the Revolutionary period met by eloquent oration. By the latter part of the seventeenth century the early pioneers, who had struggled for religious freedom, had been replaced by a new generation who were confronted with new problems. Political difficulties with England caused these people to direct their interests to the all-absorbing problem of the struggle for an independent nation. Leaders recognized the necessity of reaching all the people if their aid was to be enlisted in the cause of freedom; the people themselves were eager to be informed concerning the issues which touched them so vitally. Reading could not be depended upon as a means of communication because there was still a great scarcity of reading material, and it is estimated that about 75 per cent of the population was illiterate. Consequently the social need of the times was met by a group of orators who sprang up almost immediately, and whose business it was to transmit to the people all news and information of the times in such an eloquent way as to stir their sentiments and fire their patriotism to serve the cause of the great struggle for liberty.

The influence of oratory felt in reading instruction. Oratory served a useful purpose in the lives of these people, and because of its very great social importance the chief aim of instruction in reading now came to be that of developing *eloquent and expressive oral readers.* It was not difficult to initiate this new emphasis, since it was but a step in advance of the already well-established practice of using oral reading as an instrument for promoting clear and pure enunciation. So the new movement was readily accepted and enthusiastically promoted. The new textbook titles invariably carried with them an explanatory sentence stressing elocution. This one from George Willson's series is typical: "The American Class Reader

containing a Series of Lessons in Reading with Introductory Exercises in Articulation, Inflection, Emphasis, and Other Essential Elements of Correct Natural Elocution."

The large amount of attention devoted to the development of elocution in reading classes is further emphasized, in the quotation below, which was taken from George S. Hillard's "Third Reader":

> The following scheme of exercises in orthoëpy is intended as a manual for the daily practice of those who use this volume, to secure correct habits of articulation, and pronunciation. Every lesson in reading should be prepared for by an exercise in this manual, even though a short one. The reading is sure to be executed better if the organs of speech are brought into vigorous play by some previous exercise of this type.

That emphasis upon expressive oral reading persisted for more than a century is evidenced by the title of the "Second Reader designed to teach Animated and Expressive Oral Reading," by Ernest Cobb and Bertha Brown Cobb, which appeared as late as 1911.

Effect of present conditions upon reading instructions. *Changing conditions in life.* A new era of progress has now come upon us. Our social, economical, and political conditions are very different from those of colonial or Revolutionary times. Emphasis upon religious instruction met the needs of our colonial forefathers, and the eloquent oral reading of patriotic selections met the needs of those imbued with the "spirit of 1776." Let us now briefly review the conditions of our time in an attempt to see what bearing they have upon the modern methods of teaching reading.

1. *Present abundance of reading material.* One of the chief characteristics of our present period is the vast amount of reading material which is easily available to

all. Not only have we the accumulations of all who have gone before us, but a new flood of literature is daily placed on the market. Transportation facilities make it possible to distribute magazines and newspapers at a very low cost, and the government furnishes a mailman to deliver these reading materials to our very doors. As for books, there is scarcely a small town nowadays which does not flaunt its free public library containing thousands of volumes to which all may have access. This bountiful supply of reading material acts as a powerful stimulus to the carrying on of present-day reading activities.

2. *Illiteracy rapidly decreasing.* During the World War tests revealed that about 25 per cent of the men were unable to read and write well enough to do the simple tasks assigned them. Although this percentage of illiteracy is higher than we should like to have it, it proves that we have made a considerable advance over the colonial times when some 75 per cent of the population was illiterate. With free educational facilities in every state and a very general enforcement of the compulsory-attendance law, most people know how to read. This advance in literacy gives us reason to expect a more general practice of reading.

3. *Reading carried on for many purposes.* We no longer read solely for the purpose of learning the Word of God, nor do we read solely for the purpose of developing and displaying our powers of elocutionary expression. The present generation is vitally interested in all phases of human life: nature, science, industry, invention, travel, adventure, trade, commerce, social welfare, discovery, the manners and customs of people, and their various relationships and problems. A sufficient amount of reading material is available so that each individual may get

books or articles dealing with any special interests which he may have. As a result of these varied interests and abundant materials we find adults of today reading for many different and specific purposes.

In a recent study conferences were held with nine hundred adults for the purpose of obtaining information concerning the nature and amount of adult reading.[1] The most frequently mentioned purposes for which reading was carried on are as follows:

To keep informed concerning current events; to secure specific information of value in making plans; to learn more about events or problems of special interest; to secure the opinions of others concerning civic, social, or industrial problems; to keep in touch with business or professional developments; to secure suggestions concerning efficient methods of doing work; to determine the important items in correspondence, messages, and instructions; to follow directions; to advance in one's field of work; to broaden one's range of information; to keep the mind stimulated with important things to think about; to develop a broad outlook on life; to secure pleasure during leisure hours; to satisfy curiosity.[2]

4. *Silent reading most frequently used in adult life.* With the present rich opportunities for reading we find that individuals are devoting by far the largest amount of their reading time to the activity of reading silently to themselves. Information resulting from the investigation mentioned above disclosed the fact that "fewer than 5 per cent reported that they read out loud on other than very infrequent occasions."[3] Thus we see that the social

[1] W. S. Gray, "The Importance of Intelligent Silent Reading," *Elementary School Journal*, Vol. XXLV, pp. 348–356.

[2] R. B. Parsons, A Study of Adult Reading, (unpublished master's thesis). Department of Education, The University of Chicago, 1923.

[3] W. S. Gray, "The Importance of Intelligent Silent Reading," *Elementary School Journal*, Vol. XXIV, pp. 348–349.

value of silent reading has assumed great significance in reading under the conditions of the present day.

Changing conditions in school. 1. *More reading demanded by enriched curriculum.* Children in the modern school are no longer confined to the "New England Primer" and the Bible. In addition to the reading and spelling course of the early schools, the present-day curriculum embraces such studies as arithmetic, history, geography, civics, language, physiology, literature, all of which require thoughtful reading. In order to pursue the modern-day curriculum intelligently it is necessary that the child have good control over the reading process.

2. *More reading called for by the unit method of teaching.* Our newer knowledge of the learning process has brought about the present widely adopted plan of organizing subject matter about some central problem which the children are interested in solving and which they are permitted to solve through their own activities. Thus the work for the entire term becomes a succession of unit activities. To solve the problem which is the center of interest in any one unit, it is necessary for the children to read widely concerning the topic. This practice is another contributing factor to the increased demands for wider reading in the classroom.

3. *Schools more amply supplied with supplementary reading materials.* In addition to the basic texts, the modern school is well supplied with attractive and interesting supplementary reading materials in the way of storybooks, books of adventure and travel, books of history, biography, and geography, and informational books on industrial processes, sources of supply, and the like. It is evident, then, that pupils have richer opportunities for reading in the schools of the present time than they ever had in any previous periods of instruction.

B. Effect of Scientific Investigations upon Instruction in Reading

Although the conditions of reading in life demanded the extensive use of silent reading for a great variety of purposes, school people were slow in recognizing this need and meeting it. It was only when the accumulations of scientific investigations became so impressive as to clamor for attention that we finally took upon ourselves the task of teaching silent reading as a definite and specific part of the reading program.

For many years scientists have been working persistently and energetically in their efforts to obtain more information concerning the reading process. With the increasing demands upon reading activities during recent years, investigators have redoubled their efforts in their attempts to find more effective reading methods to use in handling the great volume of reading material with which we are now surrounded. Some of the most important findings will be discussed below.

Silent reading superior in speed. Many investigations have been conducted for the purpose of ascertaining the relative rates of oral and silent reading.[1] The results of these investigations have proved conclusively that both children and adults can read more rapidly silently than

[1] E. B. Huey, The Psychology and Pedagogy of Reading, p. 175 (The Macmillan Company, New York, 1908); Rudolf Pintner and A. R. Gilliland, "Oral and Silent Reading," *Journal of Educational Psychology*, Vol. VII, p. 204; W. A. Schmidt, An Experimental Study in the Psychology of Reading, Supplementary Educational Monographs, No. 2, p. 61 (Department of Education, The University of Chicago, 1917); C. H. Judd, Reading: its Nature and Development, Supplementary Educational Monographs, No. 4 (Department of Education, The University of Chicago, 1918); E. E. Oberholtzer, "Testing the Efficiency in Reading in the Grades," *Elementary School Journal*, Vol. XV, p. 313; C. D. Mead, "Silent versus Oral Reading with One Hundred Sixth-Grade Children," *Journal of Educational Psychology*, Vol. VI, p. 345.

orally, many adults reading silently from three to five times as rapidly as they can orally. The increased speed of silent reading is accounted for by the fact that in oral reading each word must be pronounced audibly, and it is a physical impossibility to read faster than our vocal organs can say the words, whereas in silent reading our eyes can leap ahead unimpeded by vocalization. These repeated findings of scientists in relation to the superiority of silent reading in the very essential element of speed had considerable weight in bringing about the recent emphasis on this type of reading.

Silent reading superior in comprehension. Several investigations have been directed toward the problem of finding out whether oral or silent reading is accompanied by a higher degree of comprehension.[1] The results of these studies show that on the whole silent reading results in better comprehension. This may be attributed to the fact that in silent reading it is not necessary to give attention to the mechanics of reading; consequently the reader can concentrate entirely upon meanings.

We are no longer primarily concerned with the process of verbal interpretations to others. The chief function which reading must perform for us today, according to W. S. Gray, is that of "translating the printed page into ideas, thoughts, motives, and actions which make for knowledge and efficiency." Viewed in the light of this function we can well understand the recent tendency to take advantage of scientific evidence in regard to the superiority of silent reading and to apply it by emphasiz-

[1] C. D. Mead, "Silent versus Oral Reading with One Hundred Sixth-Grade Children," *Journal of Educational Psychology*, Vol. VI, p. 345, and "Results in Silent versus Oral Reading," *Journal of Educational Psychology*, Vol. VI, p. 345; Rudolf Pintner, "Oral and Silent Reading of Fourth-Grade Pupils," *Journal of Educational Psychology*, Vol. IV, p. 333; Rudolf Pintner and A. R. Gilliland, "Oral and Silent Reading," Ibid. Vol. VII, pp. 201–212.

ing this type of reading as a better and quicker medium for grasping meanings than oral reading.

School progress aided by intelligent reading. The question as to whether or not the best reader is the best all-round scholar is one which has been the subject of much investigation. Experimental evidence resulting from these investigations shows that there is a positive correlation between reading achievement and progress in other subjects.[1] For example, in one investigation it was found that the children who failed in two of their school subjects obtained an average of twenty-seven ideas from a certain passage, whereas those who passed in all their subjects obtained an average of forty-three ideas from the same passage. Such evidence leads us to believe that the pupil who gets the most of out his reading makes the best progress in his other subjects. Since silent reading is the most effective method to use in getting meanings, we can readily see another argument for training children in the efficient use of silent reading.

Section II. Oral Reading: its Place in Modern Instruction

Social uses of oral reading. With the recent emphasis upon silent reading we find some teachers swinging to the extreme practice of abandoning oral reading entirely.

[1] E. K. Fretwell, A Study in Educational Prognosis, Teachers College Contribution to Education, No. 99 (Teachers College, Columbia University, New York, 1919); Luther Case, Two Standardized Tests for measuring Comprehension in Ninth-Grade Reading (unpublished master's thesis) (Department of Education, The University of Chicago, 1920); L. W. Webb, "Ability in Mental Tests in Relation to Reading Ability," *School and Society*, Vol. XI, p. 567; M. E. Haggerty and J. M. Thomas, "Preliminary Study of the Reading Attainments of College Freshmen," *School and Society*, Vol. VI, p. 230; J. M. Hackler, The Relation between Successful Progress in Mathematics and the Ability to Read and Understand (unpublished master's thesis) (Department of Education, The University of Chicago, 1921).

Is such a position justifiable? Should oral reading be disregarded in the program of reading instruction? Let us examine the uses of oral reading in adult life and its values in the classroom, and see if these are sufficient to warrant the continuance of training in this method of reading, and if so, to what extent.

ORAL READING LESSON

Courtesy of the State Normal Training School, Trenton, New Jersey

Conferences with a large number of adults revealed the fact that they did have some use for oral reading in their lives. The uses most frequently mentioned were "reading articles or books out loud to inform or entertain adults of the family; reading aloud minutes, reports, resolutions, announcements, notices, instructions etc., at meetings; reading aloud to entertain or interest children."[1] This evidence proves, then, that oral reading does have a place in adult life.

[1] W. S. Gray, "The Importance of Intelligent Silent Reading," *Elementary School Journal*, Vol. XXIV, pp. 348–349.

The teaching values of oral reading. *Oral reading is the psychological method of approach.* Oral reading is the most natural medium to use in introducing children to the use of the reading process. When pupils enter the first grade they have already gained considerable facility in the use

READING CLUB

Courtesy of the State Normal Training School, Trenton, New Jersey

of an oral vocabulary. Early reading deals with symbols representing this same vocabulary, except that the new vocabulary is a visual one which the child receives through the eye, whereas the one with which he is familiar is an oral vocabulary which he is accustomed to receive through the ear. Making this transition to the new language of symbols is a difficult one at best. The practice of inducting the child into this new process of translating symbols into words through the medium of spoken language is an altogether sound, sensible, and natural way of capitalizing his past experience and using it to the best advantage.

Once the transition has been made, however, to the extent that the child has gained control over the mechanics of reading, then oral reading has served its most useful purpose. This point will be discussed in a later paragraph.

Oral reading an aid to appreciation. Poetry, poetic verse, and other literature which is concerned with emotion and beauty are best enjoyed through the medium of good oral reading. Leonard says, "Wherever children feel and enjoy a vivid or beautiful or funny experience, oral reading, always one of the best forms of expression for their feeling, should constantly be stimulated and developed for the genuine purpose of sharing pleasure."[1] Thus we find another legitimate value in using oral reading in the classroom.

Some exploded theories concerning the use of oral reading. Staunch advocates of a continued emphasis on oral reading contend that this form of reading is necessary in developing habits of clear pronunciation. Undoubtedly the former methods of teaching oral reading did contribute to this end. Our present conception of the chief function of instruction in reading is that of developing children's ability in the intelligent interpretation of meanings, an entirely different psychological process from that of pronouncing words. This latter ability is not to be slighted, of course, but the language activities seem to provide more natural opportunities for establishing habits of good enunciation than do the reading activities; hence the newer tendency to emphasize the development of this ability through the abundant conversational opportunities afforded by the language periods, in which such practice may function as it would naturally function in real life.

[1] S. A. Leonard, Twenty-fourth Yearbook of the National Society for the Study of Education, chap. vi, p. 151.

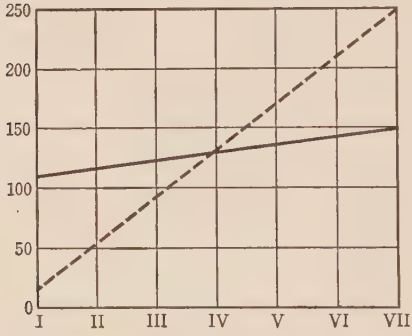
Another argument sometimes advanced for giving continued emphasis to oral reading is that it assists in increasing the child's vocabulary. This argument is not very strong when we consider that wide silent reading, in which the child comes in contact with many new words used in different situations, is a more effective means of increasing vocabulary than a limited amount of oral reading. But even if silent reading were not conducive to vocabulary-building there is no particular reason why the burden of developing vocabulary should be saddled upon reading classes. Vocabulary-building, like practice in enunciation, is tied more closely and more naturally to the language activities than to the reading activities and should receive its major attention in the language periods, in which the child is not only given contact with new words in real and vicarious experiences but actually has an opportunity to practice the use of such words in normal situations representative of real life.

Relative amounts of oral and silent reading. The foregoing discussion has pointed out the fact that oral reading is the best medium to use in initiating the child into the use of the reading process. It has also been stated emphatically that silent reading is superior to oral reading both in comprehension and in speed. How, then, are we to reconcile these two forms of reading, and what is the relative amount of time which should be devoted to each? While we must await further scientific investigation before drawing definite conclusions and sharp lines, some experimentation has already been carried on which sheds considerable light on this problem.

One of the findings which bears a significant relationship to this question is reported by Judd. By a series of studies in eye-movements of children from the first grade through the eighth, he was able to gather data as to the relative

growth in rate of articulation and rate of recognition. The figure below graphically represents his findings.[1]

A study of this graph reveals the fact that growth in the rate of recognition develops very much more rapidly than growth in the rate of articulation. Growth in the rate of recognition rapidly approaches growth in the rate of articulation all through the primary grades, and by the time that the fourth grade is reached the two lines cross. From this time the rate of recognition rapidly exceeds the rate of articulation. It is evident, then, that from the fourth grade on the child's rate of recognition would be retarded if he were held down to oral articulation. Applied to the primary situation, this evidence points to the following conclusions: oral reading assists in building the foundation for silent reading; although the early reading should largely be concerned with oral reading, silent reading should also be used from the beginning; and there should be a gradual decrease in the amount of oral reading and a gradual increase in the amount of silent reading throughout the primary grades. From the fourth grade on instruction in reading should consist almost wholly of silent reading.



IMPROVEMENT IN RATE OF ARTICULATION AND IN RATE OF RECOGNITION OF PRINTED WORDS IN SUCCESSIVE GRADES

The full-drawn line represents the rate of articulation; the broken line represents the rate of recognition of words

[1] C. H. Judd, Reading: its Nature and Development, pp. 144–146. Courtesy of the University of Chicago Press.

Section III. The Technique of Teaching Silent Reading

In the old-fashioned oral-reading lesson no advance preparation was necessary. If the teacher could tell children the words which they did not recognize her duty was fully performed. Not so with the silent-reading lesson: to develop ability through this activity, the teacher must devote careful and thoughtful preparation to many different phases of the lesson. Some of the considerations which a teacher must make in teaching a silent-reading lesson are given below.

The mental attitude for reading. The teacher must appeal to her pupils' interests in such a way as to put them in the right "mind set" for the particular kind of silent-reading lesson which they are to pursue. This may be accomplished as follows:

1. By discussing some class activity which the pupils are all interested in furthering, and out of which the silent-reading lesson may naturally grow.
2. By recalling some vivid experience of the children which relates to the lesson in hand.
3. By showing some real object which the children or the teacher have brought in and which will excite interest in the topic of the silent-reading lesson.
4. By showing pictures or reading clippings which will lead to an interest in the subject matter of the lesson.
5. By discussing with the children standard achievements in speed and comprehension in their grade and comparing their own group and individual achievements with these standards.

The motive for reading. A dynamic drive on the part of the pupils is absolutely essential if the lesson is to be fully effective. Since this subject of "reading motives" is so important as to warrant devoting an entire chapter

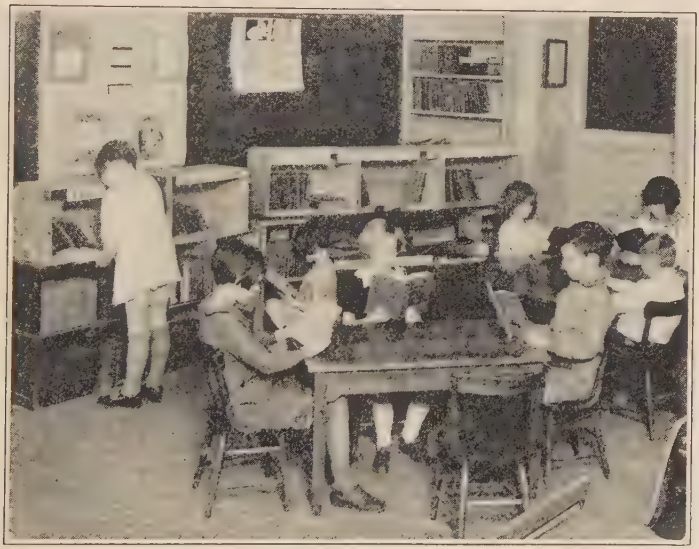
to its discussion, the topic will not be expanded upon here. The reader is referred to Chapter IV, for many concrete suggestions to use in providing children with purposeful situations for their reading activities.

Work-type silent reading and recreatory silent reading. Work-type reading is reading which we carry on for some practical purpose, to further some activity in which we are engaging. Examples of work-type reading in the primary grades are reading in order to follow directions for making a kite, reading to solve arithmetical problems, reading to prepare a geography or history lesson, and reading to gather material needed in furthering a class project.

Recreatory silent reading, on the other hand, is not pursued for the purpose of obtaining information that may be put to some practical use; rather is it carried on for the sake of the pleasure and enjoyment which it furnishes the reader. Examples of such reading in the primary grades are reading jokes or nonsense rimes just for fun, reading to satisfy curiosity about animals, birds, etc., and reading for the sake of reliving the experiences of the characters in a story.

These classes of reading require different treatment during the silent-reading period, and it is of infinite importance that the teacher clearly recognize the two types and distinguish between them. It is in connection with the work-type reading that abundant practice exercises in silent reading should be provided in order to develop specific habits of carrying on this type of reading effectively. In the case of recreatory reading the children should be left free to enjoy it with no thought of being questioned later on their comprehension of content. The only form of comprehension check which may be used safely with recreatory reading is that of letting

children share their enjoyment with others by telling a part of the story they liked best; by giving a short report of the best story they have read as a guide to others who might care to read the same story; or by some other voluntary form of reproduction which the child himself is eager to make *after* reading the selection,



RECREATORY TYPE OF SILENT READING

Courtesy of the Milwaukee Public Schools

but not as the result of an assignment previous to the lesson, which might detract from his free enjoyment of the story.

Varied silent-reading abilities. In Section I of this chapter it was pointed out that adults read for a great variety of purposes in life outside of school. It is equally true that children read for many different purposes in school. Gray reports the results of asking two hundred and fifty

teachers in different cities to submit a list of the ways in which reading is used in preparing for their varied assignments. The results show clearly that pupils have need of reading for many different purposes.

The ten most frequently mentioned purposes were associating ideas read with previous experiences; finding answers to thought-provoking questions; finding the author's aim or purpose; finding the most important idea in a paragraph or selection; selecting important points and supporting details; drawing valid conclusions from materials read; selecting facts which relate to a problem under consideration; judging the validity of statements; discovering problems for additional study; remembering and reproducing what is read.[1]

The results from such investigations make it entirely evident that silent reading is carried on for many purposes both in life and in school. Specialists tell us that we use different abilities when we read for different purposes. If we are reading directions for reaching the home of a friend with a view to remembering them so that we shall not have to refer to her note while we are driving our automobile to her house, we use a different type of reading ability from the one we use when reading a story in a magazine just for the enjoyment it affords us; if we are preparing to take a detailed test on some chapter in a textbook, we use a different type of reading ability from the one we use in glancing over the front page of the daily paper to find out which headlines appeal to us to such an extent that we care to read the article about them; and so it is with all these different abilities — a different reading process is required in each case.

Applied to classroom teaching the crux of this discus-

[1] W. S. Gray, Summary of Investigations relating to Reading, p. 16.

sion is that children must be given training specially devised to develop ability in the use of each of these different processes. The teacher who has only two or three favorite silent-reading devices in her "bag of tricks" cannot possibly contribute to her children's many-sided development to the same extent as the one who provides her pupils with opportunities of reading for all the purposes that are within their capacity. Chapter IV, on "Reading Motives," gives a rather exhaustive list of different purposes for which children may read in the classroom. The teacher should choose widely from these lists, providing her pupils with a well-balanced and varied program of reading instruction involving all the types of reading abilities which they will use in carrying out the multitude of reading purposes in life itself.

Individual differences. Every teacher will find a wide range of capacities and abilities in her room. Some pupils will be good in comprehension but will read very slowly; others may read rapidly but not get the thought from what they read; others are able to follow printed directions well but are inefficient in getting the complete thought from narrative material; and so on through the entire catalogue of reading processes. The efficient teacher will determine the needs of her children, will group together those having similar weaknesses, and will provide each group with the type of instruction necessary for overcoming their particular difficulty. Many practical and helpful suggestions for use in this work are described in Chapter XV, "Remedial Work."

Work to increase comprehension. The development of comprehension is one of the two most important factors to be considered in planning silent-reading lessons. Merely assigning lessons to children to be read silently and for

no particular purpose is no guaranty that their comprehension will be increased. Some device must be used in work-type lessons to direct their attention sharply to the import of the content, and some check must be provided that will produce objective evidence as to whether or not

FIVE DIFFERENT SILENT-READING ACTIVITIES BEING CARRIED ON AT THE SAME TIME

Courtesy of the State Normal Training School, Trenton, New Jersey

they have gleaned the complete thought of the selection. Various types of lessons may be used in accomplishing this twofold purpose:

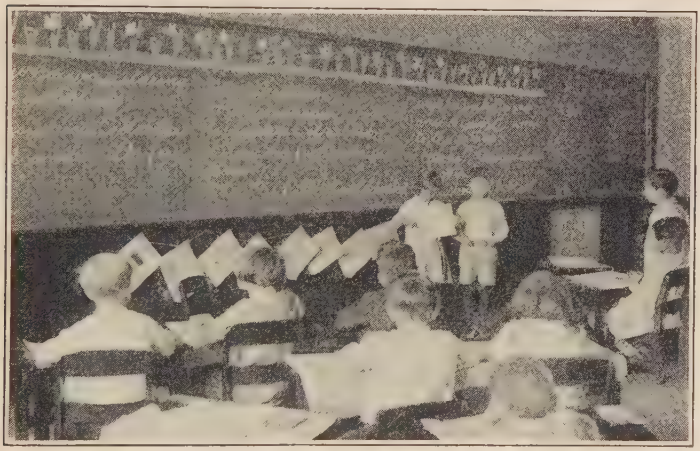
1. *Searching for information.* Let each child look up some assigned topic in relation to the class project and report his findings to the class.

Let different committees work on different topics, some pupil in each group being chosen to give the total report.

Let each pupil find out what he can at home or in the library and tell the others about it at a time set aside for that purpose.

2. *Following directions.* Let the children read silently and follow directions for drawing; construction work; performing actions; playing games; giving verbal responses; dramatizing a passage; carrying on some process, such as making butter.

3. *Answering questions.* Have the children answer questions on the text by writing answers; by drawing pictures illustrating the words required for the answers; by selecting a flash card (out of



THESE CHILDREN HAVE READ SILENTLY AND CARRIED OUT DIRECTIONS ON BLACKBOARD

Courtesy of the State Normal Training School, Trenton, New Jersey

several other flash cards) containing the appropriate answer; by rising when they have found the answer in the book; by giving oral responses to numbered question slips, the answers to which will give a reproduction of the story in sequence.

4. *Reproduction.* Let the children tell all the story read or parts of it, dramatize a selection, or draw scenes of the story from memory.

5. *Puzzles.* Let the children rearrange mixed sentences; fill blanks in completion exercises; classify words under certain headings; cross out words in multiple-choice exercises; increase lists of like words by adding more of the same class; match riddles and pictures.

These procedures are only a few of the wide variety of devices that may be used in increasing comprehension. Many additional suggestions will be found in Chapters IV, XII, and XIII.

Work to increase speed. The second most important factor to be considered in the teaching of silent reading is

SOME ARE CUTTING RAGS AND WEAVING RUGS; OTHERS ARE READING ON THIS SUBJECT

Courtesy of the Milwaukee State Teachers College

that of speed. The development of speed as well as of comprehension must be the subject of conscious effort and definite planning.

Providing the child with a wealth of simple, attractive material which is easy for him to read and which he will wish to read just for the enjoyment it affords him is one excellent means of developing speed.

This wide reading of simple material should be supplemented by frequent time-pressure exercises in which the child consciously tries to increase his rate of reading.

In all such exercises, however, great care should be taken not to sacrifice comprehension for speed. The children should be instructed to read as fast as they can and still get the thought. Both speed and comprehension should be checked in all speed exercises. A variety of informal tests to use in checking such lessons are given in Chapter XIII. A few additional suggestions for conducting time-pressure lessons are given below. In all these exercises the children should work with material that they have not previously read.

1. The teacher asks a question which is answered on a certain page in the readers. At a given signal the children open their books and race to see who will be first to find the answer to the question.

2. The children are told that they may race to see who can read the fastest. At a signal from the teacher they open their books and read until a signal is given to stop. Each pupil then counts the number of lines read. The one who has read the most must stand before the class and answer questions on the content asked by members of the group. If he fails to answer any question, then the pupil who read the next highest number of lines stands before the class for questioning, and so on.

3. The teacher prepares a set of questions upon a certain page in the text and prints these questions on flash cards. The children are given a certain amount of time to read the page on which the questions are based. At a given signal the books are closed and the teacher flashes the questions one by one. In the third grade the pupils may write the answers to the questions; in the first and second grades they may be called upon to give oral responses.

4. The teacher prepares a set of statements concerning a certain passage in a reader, omitting the last word in each case, as,

The little boy went to the _____.
He was going to buy a _____.
He said he liked drums and _____.
The man gave him a _____.

The sentences are written on the board before the children come into the room and are covered with a roller shade or a newspaper until the teacher is ready to use them. When it is time for the silent-reading lesson she instructs the children to open their books and read under time pressure until they are given the signal to stop, urging each to read as fast as he can and still get the thought. After closing their books the statements are exposed. The pupils copy the sentences and fill in the blank spaces with a picture representing the missing word. In the first grade the copying of the sentences may be omitted, and the children may be instructed just to draw the series of pictures in the order in which these would appear in the statements.

Section IV. Summary

We have pointed out that oral reading of the Bible was the chief use to which reading was put during colonial times, and that memorizing through oral chanting was the most popular method of learning to read during this period. We have discussed the fact that a little later oral reading was given additional impetus through the efforts of leaders to correct the diversity of dialects through the use of oral reading as a means of purifying enunciation and pronunciation. We have also pointed out that there was a direct relationship between the social value of oratory in the lives of the people of the Revolutionary period and the emphasis upon oral reading in the schools after that period. In discussing the present period we find that adult life outside the school is copiously supplied with reading materials, that silent reading is most largely used in life, and that reading is carried on for a wide variety of purposes. In discussing the conditions of school life at the present time we pointed out as the chief characteristics an enriched curriculum, which calls for more reading; the present tendency to use the unit plan of teaching,

which requires wide and intensive reading; and the ample supply of supplementary materials in the schools, which provides children with richer opportunities for reading. Since it is necessary to do so much more reading at the present time, it is evident that we must develop such a new reading technique as will enable us to handle our present reading activities in a more efficient and economical manner than was possible by the use of the cumbersome oral-reading methods emphasized in previous periods. We have shown that silent reading seems to meet this need, in that scientific investigation has proved its superiority over oral reading in both speed and comprehension. It has also been proved that there is a positive correlation between school progress and the ability to read well. Since we have conclusive evidence on these points we recognize the advisability of giving pupils training in silent reading from the standpoint of its use in school as well as in life. In the discussion on oral reading it was pointed out that there was still some real use made of oral reading both in life and in the classroom, that it is the psychological medium of approach to use in beginning reading, that it aids in appreciative reading, and that it is the means of laying the foundation for silent reading. It was recommended that both oral and silent reading be used from the very beginning, and that the amount of oral reading be gradually decreased and the amount of silent reading be gradually increased until oral reading largely disappears from the fourth grade on. In discussing the technique of silent reading it was pointed out that the teacher must devote thoughtful preparation to each lesson, giving consideration to such factors as reading attitudes, motives, varied silent-reading abilities, and individual differences, and making a conscious effort to increase both speed and comprehension.

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CHAPTER IV

READING MOTIVES

Outline

I. Psychological basis for utilizing purposeful reading situations
  A. The law of exercise
  B. The law of readiness
  C. The law of effect
  D. Conclusion
II. Suggestions for providing purposeful reading experiences
  A. Motives for carrying on recreational reading
  B. Motives for reproducing and dramatizing
  C. Motives for answering questions and solving problems
  D. Motives for following directions or assignments
  E. Motives for collecting materials
  F. Motives for verifying statements
  G. Motives for contrasting and comparing selections
  H. Motives for memorizing parts of selections
  I. Motives for selecting or supplying parts
  J. Motives for miscellaneous reading activities
III. Summary

The first reading done by man was embedded in situations which were intensely interesting to him, situations of such a vital nature that he had a real and earnest purpose for reading whatever content was involved in them. His reading experiences were largely of two types: the first was concerned with the interpretation of picture messages carved upon trees or rocks by some scout who had passed in advance, which it was necessary for him to decipher as a means of self-preservation; the second was that of translating crude accounts of race history which were eagerly perused as a means of obtaining necessary information concerning the experiences and achieve-

ments of immediate ancestors. When more civilized man took upon himself the task of teaching the art of reading to the young of his clan, he entirely lost sight of some of the elements which caused reading to be a dynamic performance to his primitive ancestors. One element all too often overlooked in present-day instruction in reading is that of utilizing *pupils' purposes* in teaching the various phases of the reading process. In many classes the mistake is made of teaching reading as an end in itself rather than as a means toward an end. In life outside of school we never read just for the sake of performing the act of recognizing symbols: we always use our ability as a means of furthering some other aim that we have in mind. The child's reading lessons in school should also be motivated by his desire to achieve ends other than just going through exercises for the sake of mastering the subject. All his contacts with the activity of reading should be of such a nature that he may realize from the very beginning that reading is a useful tool which will serve him in carrying out his purposes in life.

The aim of this chapter is to point out some psychological reasons why an effort should be made to provide children with purposeful reading experiences, and to suggest some practical measures to use toward achieving this goal.

Section I. Psychological Basis for Utilizing Purposeful Reading Situations

For several years investigators have been carrying on scientific studies for the purpose of discovering the conditions under which learning most readily takes place. As a result the critical elements in the learning process have been revealed, and certain laws that govern successful teaching have been formulated. These "laws of learn-

ing" are as important as any other laws of nature, and successful learning is achieved in direct proportion to the extent to which they are observed. Three of the most important of these laws, according to Thorndike, are the law of exercise, the law of readiness, and the law of effect. Each of these will be discussed briefly in the following paragraphs.

The law of readiness. The substance of the law of readiness is that when a bond is ready to act, to act gives satisfaction and not to act gives annoyance; when a bond is not ready to act, to act gives annoyance and not to act gives satisfaction. Applied to a concrete example, let us suppose that a boy wants very much to make a kite, and that just as he is about to engage in this fascinating activity the teacher calls him to the front of the room to participate in a drill on words needed in the next lesson in his reader. The drilling will bring him annoyance because he is not ready to do that particular thing. An adjustment has been made in his nervous system toward the end of making a kite: to be permitted to make the kite will bring him satisfaction and to be prevented from making it will bring him annoyance. On the other hand, let us suppose that in order to make this kite it is necessary for him to read instructions to find out how to construct it; let us suppose, further, that in these instructions there are new words which block his progress in finding out how to make the kite. In this case he will be eager to receive help on the words and will welcome practice as a means of assisting him to carry out the purpose he has in mind. Because he is in a state of readiness to receive practice in this latter case, the exercise will bring him satisfaction.

The law of exercise. The theory of the law of exercise is that when a modifiable connection is made and repeated

between a situation and a response, that connection is, other things being equal, increased. Stated in more simple terms, this law means that the more times a certain connection is repeated, the stronger it becomes. For example, in teaching a child a new word it is necessary to provide him with repeated opportunities for exercise in the way of reading this word if he would permanently fix it in his reading vocabulary. The law of exercise is summed up tersely in the old proverb "Practice makes perfect."

The law of effect. The theory of the law of effect is that when a modifiable bond acts it is strengthened or weakened according as satisfaction or annoyance results. In the case of the first drill on words, which brought the child annoyance, the teacher was thwarting her own purpose in giving the drill, inasmuch as the child's annoyance was weakening the very bonds she was attempting to strengthen; in the second drill, in which the child *wanted* to learn the words so that he could find out how to make his kite, the satisfaction he experienced in achieving his aim worked in direct harmony with the teacher's efforts to establish the new bonds.

Conclusion. The law of exercise has always been recognized by teachers, and it has often been overworked by them at the expense of the laws of readiness and effect. Many teachers have believed that as long as they had their pupils do certain things over and over again, they were providing them with complete opportunity for effective learning. This is one of the most serious mistakes of our past procedure. It is not only what a child does that educates him; the emotional reactions which accompany the doing play a crucial part. "You can lead a horse to water, but you can't make him drink"; you can make a child go through the motions of a word drill, but you cannot make the results of the drill stick in his nervous

system unless the child himself wants to make them stick. Not only must the teacher provide the child with the opportunity to exercise new responses, she must insure a state of readiness on his part by seeing to it that he himself feels a strong purpose impelling him to engage in the exercise. Let him desire to carry forward the activities involved in the exercise, and it naturally follows that the achievement of this desire will bring him a feeling of pleasure or satisfaction, and this in turn will immeasurably strengthen the new learning which is taking place. Thus we see that the child's purpose for engaging in an activity is of great importance in effective teaching and learning.

The teacher should ever be on the alert to capitalize any needs for reading which children may have in carrying out purposes of their own initiation. Usually, however, there are aspects of the process of reading which will not receive sufficient practice if the reading needed for the children's own individual purposes and class projects is depended upon as the only source of instruction. Purposeful practice must be given, so varied in nature as to develop many different reading abilities.

Section II. Suggestions for Providing Purposeful Reading Experiences

The suggestions below should be of assistance to the teacher in providing motives for such purposeful practice. The headings represent different types of reading abilities which we employ in life. A few of the suggestions are suitable for only one grade; most of them, however, may be adapted for use in any one of the first three grades. Because of this general overlapping it did not seem advisable to classify the suggestions by grades, but rather to advise the teacher to read through the entire list

and select what she can use to the best advantage with the particular group she is teaching. The organization of these hints under the headings of different types of reading abilities should be an aid in preparing and carrying out a well-rounded program of instruction in reading.

Motives for carrying on recreational reading. *Reading for enjoyment.* One of the strongest motives for recreational reading is that of reading something of our own selection because we want to read it for some personal satisfaction of our own. For this reason every teacher should have a supplementary book table in her room covered with as many attractive books as she can gather together. Each child should be given ample opportunity to choose any book he wishes from the table, to read "just for fun," with no thought of being questioned on the content or of putting the result of his reading to any further use of any kind.

Competing for long lists on library cards. Let the children compete to see who can have the longest list of books on his library card. This motive is best realized by converting the supplemental book table into a play library, providing each child with a card, and letting different children take turns in being librarian. Each child draws a book of his own choice from the library. When the book is taken, the title is written on the library card by the librarian or the teacher. The children greatly enjoy the competition of seeing who can get the longest list of books on his card.

Reading to find a story to share. Reading to find a story which the child enjoys so much that he wishes to share it with other children is a good motive for recreational reading. A procedure for carrying out this motive is as follows: The teacher announces that she is going to set aside a certain period a few days hence for each child to

tell to his classmates some story he has read at home or in the library and has enjoyed so much that he would like the others to know about it. She states that it would be desirable for each child to read three or four stories and then select the one he enjoyed most of all. The period should be looked forward to as a pleasurable experience, and the children should be permitted to enter into a free discussion of the stories with a spirit of genuine enjoyment.

Reading a part of a story to stimulate interest. Telling a story up to an exciting point in which the characters have got into a dilemma, then presenting the books to the children to read in order to find out what happened next, is a motive which will cause the most indifferent child to want to read. In one such instance the teacher told the story of "The Lion and the Mouse" up to the point where the mouse found the lion struggling in the net. Then she asked, "What do you suppose happened next?" Various answers were given, such as "The mouse laughed at the lion and ran away," "The lion got out of the net and ate the mouse up," and "The mouse helped the lion to get free." When interest was at its height the teacher said: "This story is in some books which I have here for you. You may read it for yourselves and find out what happened." The books were passed, and the children read intently for several minutes. No check-up was required of them other than that of finding out how the story ended.

Motives for reproducing and dramatizing. *Reading to dramatize.* The children may read a story for the purpose of planning a dramatization. After reading it silently they discuss the setting, the scenery, the main characters, and their parts. If there are not enough characters to take in all the class, two or three pupils may be assigned the same

parts and the story be dramatized by different casts, a vote being taken to decide which cast did the story best. The properties and scenery should, of course, be very simple. In dramatizing "The Little Red Hen" a wheat stalk was borrowed from the science room, a picture of a loaf of bread was cut from a magazine and pasted on cardboard, a salt sack was stuffed with grass and used

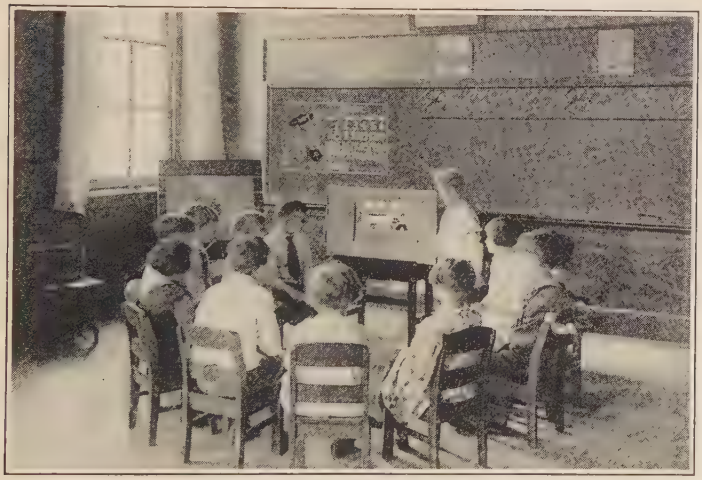
READING FOR THE PURPOSE OF DRAMATIZING A STORY

Courtesy of the State Normal Training School, Trenton, New Jersey

for the bag of flour, the closet was used for an oven, and the barnyard was marked off on the floor with a piece of colored chalk.

Presenting a moving picture. Children greatly enjoy reading a story for the purpose of preparing a moving picture. A large cardboard box is used for the framework. The lower half of the front of the box is cut away to show the stage. A slit is cut across the top, and the characters are lowered through this slit and moved about

by means of strips of cardboard to which they are attached. The scenery and the characters are prepared from directions furnished by the teacher. As the story is being enacted someone may read or reproduce the parts. In the third grade the children may prepare captions which tell the story and which may be flashed on the stage at the appropriate time during the progress of the picture.



READING A STORY TO MAKE A MOVING PICTURE (PRIMARY CHILDREN)

Courtesy of the State Normal Training School, Trenton, New Jersey

In one class "The Three Pigs" was presented in this way. After reading the story the children decided to show four scenes: Scene 1, showing the little pigs leaving their mother's home; Scene 2, showing the black pig's house of straw; Scene 3, showing the white pig's house of sticks; Scene 4, showing the red pig's house of brick. After discussing the possibilities of the story for dramatization, the teacher wrote directions on the board for preparing each of the scenes, and different groups worked on

different scenes. Each child chose the part he wished to reproduce, and after the different children were tried out, the child who did his part best was chosen for the final play.

Reading to reproduce for entertainment. Let the children read a story for the purpose of reproducing it for the entertainment of someone else. Sometimes each child may read a different story and tell to other members of the class the part he liked the best or the story as a whole; or the entire class may read the same story and different pupils be given a trial at reproducing it, so that the group may decide who is best fitted to tell the story in another room or for an assembly program.

Dramatizing parts for others to guess. Children may read a story to see if they can dramatize some part of it well enough so that the others can recognize it. The procedure is as follows: Each child silently reads through a given story with the foregoing purpose in mind. Different children are then permitted to enact their chosen parts before the class either in pantomime or in actions combined with words. When each child has finished his dramatization, some other member of the class is called upon to read orally the part of the story which was represented. When he finishes, the child who enacted the part tells him whether or not he guessed the part played.

Motives for answering questions and solving problems. *Reading to solve a problem.* Problems often come up in connection with class projects. Such problems furnish strong drives and should always be solved through reading. At times the teacher may also set a problem for the children to solve by reading a certain selection in their readers. For example, the name of a story in a third reader was "The Tongue-Cut Sparrow." The teacher passed out the books and had the children turn to this

story. She asked the children the name of the story, and when it was given she said: "What a strange thing! Why in the world do you suppose they cut his tongue?" A lively discussion followed, in which the teacher made her contribution by telling about a pet crow she had when she was a little girl, and how someone loosened the membrane under his tongue and taught him to say "How-do-you-do." The children ventured some guesses as to why the sparrow's tongue had been cut, and eventually the teacher said: "Well, that's a problem for you to solve for yourselves. Read the story and find out why his tongue was cut." After reading the story silently the children were permitted to give the answers to the problem. These answers summarized the general content of the story.

Reading in response to questions on each paragraph. The teacher asks one good question on the content of each paragraph, and then the children read the paragraph for the purpose of finding the answer to the question. For example, the children were reading a story about a squirrel family. In connection with the first paragraph the teacher asked, "What did the mother squirrel tell her little squirrels not to do?" When they had finished reading the paragraph a pupil whispered the answer in the teacher's ear, after which another question was proposed and the next paragraph read, and so on.

Reading to answer a set of questions presented in advance. Another means of using this form of motivation is for the teacher to provide the children with four or five questions on a selection and to let them read the whole story for the purpose of finding out these points, and then write the answers. For example, a third-grade class in community life were studying farming and were going to read

a story called "Olaf's Farm." The teacher gave each of them a typewritten set of the following questions:

Where did Olaf the farmer live?
Who was Gudbrand the Good?
How many sons did he have?

They first read the questions on their typewritten sheets, then they read the story with these questions in mind and later wrote the answers to the questions. Such questions may be placed on the blackboard as well as on individual sheets.

Reading to make up questions to ask of classmates. The children may read a certain selection or some part of it for the purpose of making up one, two, or three questions to ask their classmates. At the same time they may prepare themselves to answer any question their classmates may ask of them. After this preparation is made, different children are given turns in asking their questions and calling upon whom they choose to answer them. Competition may be introduced by dividing the class into two sections and giving a score for each correct answer in order to see which side will earn the highest total score.

Motives for following directions or assignments. *Following directions to make something.* The need often arises for making posters, class booklets, valentines, May baskets, and other forms of construction work in which directions are necessary. Reading these directions to find out how to do the work is an ideal situation for the employment of purposeful reading. An illustration of such a practice is as follows: The children in a first-grade room planned to make a circus poster showing the entrance to the circus, with all the men, women, and children arriving. Each child chose the figure he wished to make.

The next step was to find out how to color the picture correctly. A chart of directions was posted up in front of the room. Each set of directions was numbered to correspond with a number on the pattern for which it was intended. For example, a child who drew a picture of a little girl went to the chart and matched the 5 on her pattern with the 5 above a set of directions on the chart. She then read the directions with great interest to find out how to color her picture. The directions in this case were as follows:

Color the shoes black.
Color the coat brown.
Color the hat red.

The teacher may also find it possible to provide the children with purposeful reading experiences in connection with directions for making jelly, butter, cookies, candy, etc. A second-grade class followed the recipe below in making muffins for a class party:

2 cups of flour
3 teaspoonfuls of baking powder
2 teaspoonfuls of sugar
1 teaspoonful of salt
1 egg
1 cup of milk
2 teaspoonfuls of melted butter

Reading directions for pantomiming a story. The teacher writes on the board a set of directions for pantomiming a story which the class has read. The children read the directions to find out what they are to do in giving the pantomime. Each direction in turn may be read silently by the class as a whole, then someone be chosen to enact it; or different pupils may be called upon to select some one sentence and enact it while the class see if they can

tell which one it is. The following directions are representative of the type to use for this purpose:

Play that you are Goldilocks knocking at the bears' door.
Play that you are eating the bears' porridge.
Play that you are sitting in one of the bears' chairs.
Play that you are sleeping in one of the bears' beds.
Play that you are Goldilocks when she woke up and saw the bears.

Reading to find out room duties. A list of room duties may be posted on a bulletin board or written on the blackboard, followed by the names of children who are to perform the duties. Each pupil eagerly reads the directions to see if he has been assigned a task and what he is to do. In one first-grade room the teacher began by placing a single direction on a cardboard chart, and gradually increased the number of directions till there were five, which read as follows:

You may water the plants, John.
You may feed the goldfish, George.
You may pile the books neatly on the table, Rose.
You may wash the blackboard, Mary.
You may clean the erasers, Louise.

Every day different names were placed after the directions, and each pupil was alert to see if he would get an opportunity to perform one of the acts.

Motives for collecting materials. *Reading to prepare for reading parties or assemblies.* Occasionally the teacher may tell the children that she is going to set aside a certain afternoon in which the class may have a "reading party." At other times she may announce that several classes are going to gather in the auditorium for a reading assembly. In either case the children have a motive for gathering material for a program. The following procedure has

been used successfully in carrying out this motive: The group discuss possible centers of interest, such as stories of birds, animals, children, Christmas, Easter, and so on. When they have decided upon a suitable theme they search through tables of contents in all their books for titles of stories which may be appropriate for the purpose.

THIRD-GRADE PUPILS READING TO GET INFORMATION FOR FURTHERING AN INDIAN PROJECT

Courtesy of the Milwaukee Public Schools

These titles are listed, and each child chooses two or three stories to look up and pass judgment upon. After reading them he tells the children which one he likes best and why, and reproduces parts or all of it for them, or reads to them orally. After all the stories have thus been presented, the class decides upon the ones to be used for the final entertainment and how they shall be used — whether they shall be dramatized or reproduced or read orally.

In the light of these decisions the program is organized and executed by the class.

Reading to gather information relative to the class project. One of the best motives for gathering materials is that of letting the children seek information which will contribute to some class project they are all interested in furthering. For example, a class absorbed in a study of Eskimos searched widely in supplementary readers, library books, and home books for bits of information bearing on this topic.

Reading to plan scenery. In planning scenery for class plays pupils often need more information than the story itself gives. For example, one class were planning to present "Hansel and Gretel" as their part of an assembly program; consequently they read widely to find descriptions of German costumes and scenery.

Motives for verifying statements. *Choosing and verifying activities.* Children may choose from written or printed statements some activities which they wish to perform, and later they may verify their reading by showing their work to prove that they did what the statements said. The teacher introduced one such lesson by saying: "I am going to place upon the blackboard a list of the things which we may do next period. You may do any one of them which you choose." She then wrote this list on the board:

We may draw.
We may paint.
We may make things.
We may write.
We may read.

The children read the list, chose some line of work, and performed it. When the period was over, the teacher stood in front of the sentences and said, "I wonder if every

child can read these sentences well enough so that he can quickly stand up when I point to the sentence which tells what he did." She then pointed to the sentences, and the children read them silently and rose at the appropriate time, each showing what he had done.

Reading to settle arguments. Sometimes an argument arises in class in regard to some subject. Instead of telling the children the right answer or advising them to find out from someone else, it is better to capitalize this situation as a motive for reading. Refer the children to some story or selection which gives the necessary information and let them read to find out who is right. An example of such a practice was a case in which a group of boys were making viking helmets from a description which had been read to them. One boy declared that the wings on the helmet made by one of his classmates were too small, because the description had specified a certain size. All the boys were then provided with copies of the description to read for the purpose of finding out whether there was or was not such a statement about the size of the wings.

Reading to answer questions and verify statements. The teacher tells the children that they may read a selection for the purpose of preparing to answer questions upon it; they are to prove their answer in each case by reading aloud the selection that supports it. After the children have read the story silently they close their books and the teacher asks questions of fact on the content. For example, one question asked in such a lesson was "Who was waiting for Tommy when he reached home?" The child called upon to reply to this question answered, "He found a little man with a blue coat and white whiskers." Then the teacher asked, "Can you prove it to us?" The child then read orally from his book the passage "When Tommy reached home, there, waiting for him,

was the little man with the blue coat and the white whiskers." Such reading has a purpose.

Deciding whether statements are true or false. An excellent type of reading experience is that of letting children read a selection for the purpose of passing judgment upon the validity of certain statements concerning it. In such a lesson the teacher writes on the board a set of statements, all based on the selection at hand, some of them true and some of them false. An illustration of such a set of statements is given below. It is based on the story of "The Goats in the Turnip Field."

> The boy put the goats in the turnip field.
> The boy was laughing when the rabbit came.
> The fox could not get the goats out of the field.
> The bee could not get the goats out of the field.
> The wolf made the goats run out of the field.

The children first read these statements from the board, then they read the story to see which were true and which were false. In the second and third grades the children may copy the statements after reading the story and write Yes or No after each statement. In the first grade the teacher may call for a showing of hands on each statement, asking: "How many think the first statement is true? How many think it is false?" and so on.

Motives for contrasting and comparing selections. *Reading to find differences in different versions.* Many of the same old folk tales are contained in several different primary readers. Utilize this overlapping of material in motivating a lesson by letting the children read different versions for the purpose of finding wherein they differ. For example, in one story about "The Three Billy Goats" it says that the troll came right up to the bridge, in another it says that the troll started to come up to the bridge, in still

another it says that the troll chased the goat a little way in each case before he saw the other goat coming, and so on with many other variations.

Reading to identify descriptions. Children often describe a bird, butterfly, flower, tree, or animal which they have seen while driving in the country or visiting the parks, and the other pupils become curious to know what the name of the particular species is. If material suitable for the grade under consideration is available, the children may be referred to this material, which they read for the purpose of identifying the object described. If no printed material is available the teacher may prepare three or four descriptions of different species of the same class, each of which is named, and one of which describes the object in question. The children read all the descriptions to determine which matches the child's description best, and in this way they find out the name of the species. One example of reading to identify description is this: A little girl told the class about an unusual bird that she saw on the way to school. No one knew the name of the bird. The teacher provided the class with as many bird guides as she could gather from her friends, the school library, the public library, and the children's home libraries; and they spent several periods reading with great avidity in their attempt to find out the name of the bird.

Contrasting and comparing stories about the same subjects. The children may be given two or three stories about the same subject, such as dogs, birds, cats, horses, pets, toys, children of other lands, etc. Their purpose for reading these stories is that of discovering likenesses and differences between the characters. One teacher introduced such an activity by telling the children that they were going to have an opportunity to read stories about three very interesting dogs — Jack, Shep, and Buck.

Then she said, "Here are some things which you will want to find out about these dogs," and as she said this she wrote the following questions on the board:

Which dog was the best hunter?
Which was the bravest?
Which was the prettiest?
Which one should you rather have for your own dog? Why?

After reading the questions the children were eager to find out about the dogs, and the stories were read with great interest. A conversation period followed in which all the points were discussed, and finally a vote was taken to determine the consensus of opinion on each point. After one or two lessons of this sort pupils will be able to make up their own sets of questions.

Motives for memorizing parts of selections. *Remembering a list of items.* Pupils may read a paragraph, a page, or a selection for the purpose of remembering a list of items enumerated. The teacher introduces such a lesson by saying something to this effect: "Read the first paragraph and then see if you can tell me all the things Tom had for lunch," or, "Read 'The Gingerbread Boy,' then close your books and see if you can draw a picture of all the different animals the Gingerbread Boy met, in the order in which he met them."

Remembering the last line. Children enjoy a game in which the reading motive is that of trying to remember the last line in a paragraph. A certain page number is given and pupils turn to that page and read until they have covered the first paragraph. As soon as a child finishes the paragraph he closes his book. He may then either whisper the last line of the paragraph to the teacher or write it down. In either case scores may be given to competing sides if desired, in order to increase interest.

Memorizing a poem for a purpose. After several poems have been read to the children, the teacher may print them and post them on the bulletin board, telling each child that he may go there at odd times and learn the poem he likes best to recite at home, in another room, or as his contribution to some class program.

Making a book of poems. In the third grade the children may copy the different poems which they or the teacher have read during a given period of time, and bind them into a poem booklet with an attractively decorated cover. Each child may then memorize any of these which he would like to add to his permanent repertory.

Motives for selecting or supplying parts. *Finding a part that will make the best scene.* A never-failing motive is that of reading a story in order to picture a part of it with colored crayons. The teacher assigns a story which lends itself to such treatment and tells the children that they may read it and select any part they choose to illustrate. At the end of the period each child shows his illustration to the class, and the class tries to guess which part of the story he pictured.

Finding the part you like best in a story. The children read a selection for the purpose of finding which part they like best, and later they read the part aloud to the class.

Reading to fill in blanks. The puzzle element in finding words to fill in blanks causes such an activity to be especially attractive to children. In carrying out this type of lesson the teacher writes on the board a series of statements concerning the story to be studied and omits certain important words. The children read the story to find out what words are needed in completing the sentences. They then copy the sentences and write the appropriate words in the spaces. In the first grade the teacher

may omit the nouns only, and the children may draw the pictures of the omitted words in the order of their occurrence. An illustration of such an exercise follows:

Grandfather said,
"Open your _____
And shut your _____."
Grandfather gave Tom some _____.
Tom put it on the _____.
Then Tom went to _____.

Finding the sentence you like best. The teacher places a series of sentences on the chart or bulletin board. Each child is permitted to choose and read aloud the sentence he likes best. The goal is to see which sentence is selected by the most children.

Reading to supply words. Information wanted for project work is often in a book that is too hard for primary children to read. In such cases children derive considerable benefit from having the books in front of them and following through the pages as the teacher reads to them. Their purpose in doing this might be that of supplying words or finishing sentences at times when the teacher stops. For instance, a third-grade room was having a viking project. The teacher was reading to them a selection about vikings from a fourth-grade supplementary reader. She read the sentence "Our ears are thirsty for . . . song," pausing after "for" while the children chimed in with the missing words; and so on through the story.

Motives for miscellaneous reading activities. *Beating one's record.* One of the strongest motives that can be used in arousing a child's desire to improve himself in any one of the different phases of reading is that of trying to beat his own record of achievement. This may be accomplished

by testing the pupil at intervals throughout the term and letting him graph or chart his achievements after each test, thus watching himself grow. Suggestions of procedure for utilizing this motive are given in Chapter XIII, "Informal Tests," p. 318.

Making individual newspapers. Children may be permitted to "file away" in their notebooks weekly copies

READING NEWSPAPERS AND BOOKS THESE CHILDREN MADE

Courtesy of the Milwaukee Normal Training School

of the class newspaper as soon as they are able to read each "issue." The newspaper consists of items suggested and composed by the children, and the teacher writes these on the blackboard or prints them and places them on the bulletin board. This material forms the subject matter of one or two reading lessons, after which each pupil who can read the newspaper is permitted to copy the news in his news booklet. In the first grade the

children are given mimeographed copies to bind in their booklets. These are taken home at frequent intervals and read to the members of the family. The following are samples of items for such "newspapers":

THE FIRST ROBIN

Mary saw a robin this morning.
His breast was red.
His back was brown.
He was walking around on a lawn.
He was looking for worms.

A PRESENT

Miss Blake gave us a pretty plant Monday.
It has long green leaves.
It has bright yellow flowers.
Miss Jones says they are called daffodils.
We set it in a sunny window.
We wrote a letter to Miss Blake and thanked her for it.

Reading to check lists. When planning projects it is often convenient to write lists of materials, foods, activities, and the like on the blackboard. These lists should be left on the board and referred to again and again as a means of refreshing pupils' minds as to the plans for the project, as a basis for dividing duties among various committees, as a basis for checking off items in order to find out what remains to be done, and so on. In one such case the children were planning to have a picnic, and prepared lists which were used in all these capacities in connection with such topics as food, entertainment, things to see, and games to play.

Reading to guess riddles. The teacher prints a riddle and puts it on the chart or writes it on the board. The children

read it orally or silently, as the teacher prefers, for the purpose of seeing how many can guess the right answer. The following is an example of such a riddle:

I am round.
Sometimes I am red.
Sometimes I am yellow.
I have little brown seeds in me.
I grow on a tree.
I am good to eat.
What am I? apple

Reading to decide upon a title. The children may read a short story (placed on the board by the teacher) for the purpose of deciding upon an appropriate title for the story. In one such instance the teacher wrote on the board a short story of her own composition, and then asked the children if they would read the story to see if they could make up a good title for it, one which would tell a person who was going to read the story just what it was about. After reading the story silently, various titles were suggested by the pupils and were written on the board by the teacher. After due consideration each title was voted upon, and the one receiving the highest number of votes was written above the story.

Reading letters. Children are always eager to read letters. With a little planning on the part of the teacher letters may be exchanged with the principal, with other teachers, or with other classes. In any case the letter may be composed by the class, be written on the board by the teacher, and be read in order to make sure before sending it that it is a good letter. The answer to the letter may also be written on the board and used as a reading lesson motivated by the children's desire to find out the import of the message.

In one first-grade room a child, with the help of her mother, wrote this note to her teacher:

Dear Miss Stuart,
Do you remember when Ida May was in your room?
Do you ever walk in the park?

This was the teacher's answer, written on her personal stationery:

Dear Mary Jane,
I do remember when Ida May was in my room.
She is a big girl now.

Yes, I walk in the park almost every day.
Yesterday I saw a squirrel.
He had a big brown nut in his mouth.

The next morning the teacher called the class to the front of the room. She told them that Mary Jane had written her a letter and asked them if they would like to know what the letter said. They were very curious to know, so the teacher wrote the letter on the board and let them read it. Then she showed them her reply, and, of course, they wanted to know what she said in her letter. So she then wrote her reply on the board and helped the children to read that.

Section III. Summary

We discussed the fact that the psychological basis for providing children with purposeful reading experiences is found in the laws of learning, particularly the law of readiness and the law of effect, both of which must be in operation simultaneously with the law of exercise if the latter is to function to its fullest extent. We also suggested a number of motives that may be used in giving

children purposeful practice in pursuing these different types of reading activities: recreatory reading; reproducing and dramatizing; answering questions and solving problems; following directions and assignments; collecting materials; verifying statements; contrasting and comparing selections; memorizing parts of selections or poems; selecting or supplying parts; and miscellaneous activities. (10)

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CHAPTER V

EYE-MOVEMENTS IN PRIMARY READING

Outline

I. A brief history of investigations in perception and eye-movements
   A. Scientific studies in Germany and France
   B. Scientific studies in America
   C. Apparatus used in recent investigations
   D. Reasons for the use of eye-movements as a subject of investigation
II. Important findings resulting from eye-movement investigations
   A. Findings in regard to the differences between immature and mature readers
   B. Effects of different methods of teaching on eye-movements
III. Practical applications
   A. Method of detecting eye-movements
   B. What the teacher can do to aid in the establishment of good habits of eye-movement
IV. Summary

For many years children were taught to read through the use of methods and subject matter which were logically arranged from the adult point of view, with no consideration of the ways in which children themselves really learn. Thus we find reading was taught to many generations in accordance with the conviction of some of the old schoolmasters that all teaching should proceed from "the simple to the complex." The "simple" in reading meant letters and syllables, and the "complex" meant phrases and sentences. According to this plan the child learned his ABC's, then some syllables, and was finally permitted to read phrases and sentences. No one doubted for a minute that when one reads his eyes look at each letter in turn, eventually fusing all the letters together in order to recog-

nize the whole word. But after a time investigators probed into the process, and revealed a fact so startling as to revolutionize many of our former practices. It is the purpose of this chapter to discuss some of these important scientific findings in connection with the phase of reading concerned with eye-movements and to prescribe ways of utilizing this knowledge in the classroom.

Section I. A Brief History of Investigations in Perception and Eye-Movements

Scientific studies in Germany and France. As early as 1844 we find an aggressive French investigator by the name of Valentius directing his attention to the perceptual processes of reading. Valentius concluded that a reader perceives from three to four letters simultaneously in from one hundred thousandths of a second to two hundred and seventy thousandths, but it was his opinion that each letter was perceived separately. Soon the leading universities in both France and Germany became interested in studying eye-movements and perception, and many important contributions resulted.

About 1879 Javal conducted some investigations in eye-movements, the outcome of which was the astounding discovery that the eyes did not move clear across a line in one continuous sweep, as had been supposed, but that the movement consisted of a series of alternate movements and pauses. This discovery stimulated many other investigators to carry on studies concerned with perception and the behavior of the eye. Cattell distinguished himself especially through a series of articles which he began to publish in 1886. His conclusions were of a highly significant nature, because he disclosed evidence to the effect that perception did not proceed by letters, as had

formerly been supposed, but rather by words and frequently by phrases and sentences. Cattell's investigations were followed by a whole series of important studies carried on by such scientists as Goldscheider and Müller of Berlin; Erdmann and Dodge at the University of Halle; Zeitler at the University of Leipzig; Lamare at the University of Paris; Ahrens at the University of Rostock; and Messmer at the University of Zurich.

Scientific studies in America. About the year 1886 considerable interest in the problems of reading began to develop in the United States, and from that time on an ever-increasing stream of scientific literature has come forth from American presses. Among the most important of the earlier American investigators we find such names as Huey, Dodge, Dearborn, Dockeray, Franz, Quantz, Sanford, Griffing, Whipple, and Secor. The more recent investigations in this field were conducted by Judd, Buswell, and C. T. Gray at The University of Chicago. These last-named investigators conducted studies of a far more elaborate, extensive, and reliable nature than those resulting from any previous period.

Apparatus used in recent investigations. The apparatus used by early investigators was crude indeed compared with the highly refined and elaborate mechanism used in the Chicago investigations. As is the case with all inventions, each scientist who carried on a new investigation in eye-movements throughout all these years improved and perfected the apparatus used by his predecessors. The preparation of the Chicago apparatus is particularly interesting, in that a professor of education devoted an entire year to the work of designing this improved mechanism, a skilled mechanic spent several days in constructing the machine, and it was finally installed at the cost of $6000. This apparatus consisted of an elaborate photo-

graphic mechanism which actually took upon a moving film a series of pictures of a ray of light reflected from the eye during the process of reading. Through the use of this intricate and highly refined device many very thorough and reliable studies were made, some of which will be described in this chapter.

Reasons for the use of eye-movements as a subject of investigation. At first thought it does not occur to one that eye-movements have a very close relationship to reading. Unless one has devoted some study to this phase of reading he is quite justified in wondering why he hears so much about eye-movements these days, and why investigators throughout the years have attached so much importance to them. Perhaps we had better give some reasons for this emphasis before proceeding further.

Eye-movements are a part of the reader's nervous and muscular activity. As explained by Dr. Buswell:

> Just as hand-movements are necessary to writing, so also the processes of reading cannot be carried on without eye-movements; and just as good writing demands a careful control of hand-movements, so also mature reading demands a delicately co-ordinated type of eye-movements.[1]

Eye-movements are, then, truly necessary phases of the process of reading, and are so fundamental in character as to furnish a valuable line of study in investigating the act of reading.

Eye-movements not easily subject to conscious control. Another reason why eye-movements are the subject of much investigation is because of their reliability. They consti-

[1] G. T. Buswell, Fundamental Reading Habits: a Study of their Development, Supplementary Educational Monograph No. 21, chap. i, p. 7. University of Chicago Press.

tute one element of reading which cannot be modified by the reader to suit the occasion. Dr. Buswell says:

> It is as difficult to modify directly one's eye-movement while reading as it is to modify purposely the character of one's habitual gait in walking. . . . A person's walking furnishes a symptom of his stage of maturity. In a similar fashion a person's eye-movements furnish an index of the general nature of his reading process, a symptom of the stage of maturity of his reading habits.[1]

Eye-movements furnish objective evidence. A third reason why eye-movements have been used as the subject of extended investigation is that they yield perfectly objective evidence. There is no other phase of reading which lends itself to the process of making accurate photographic records. Such concrete evidence is easily interpreted and convincing.

Section II. Important Findings resulting from Eye-Movement Investigations

Findings in regard to the differences between immature and mature readers. In teaching any skill it is necessary that we have in mind both the stage of development of the pupils we are teaching and some standard of the ultimate perfect accomplishment, so that we may know whether or not our training is being headed in the right direction. It has been truly said that when teachers and children know where they are and where they are to go, there is reason to believe that the journey will be completed; otherwise it is very doubtful. A brief discussion of the characteristic eye-movements of immature readers and mature readers will be given in the following paragraphs so that the teacher may know "where her children

[1] G. T. Buswell, Fundamental Reading Habits: a Study of their Development, chap. i, p. 8.

are, and where they are going" so far as their habits of eye-movement are concerned.

Nature of eye-movements in immature readers. First let us examine evidence which shows us the stage of development

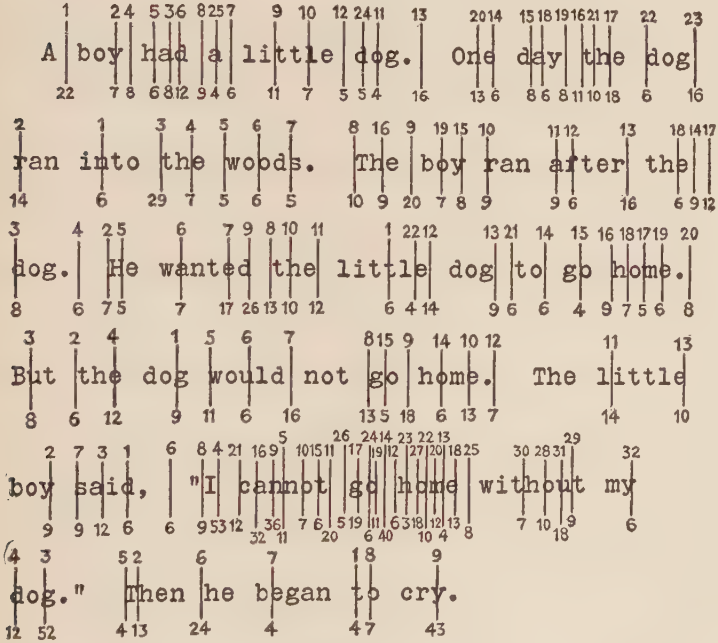
A boy had a little dog. One day the dog
ran into the woods. The boy ran after the
dog. He wanted the little dog to go home.
But the dog would not go home. The little
boy said, "I cannot go home without my
dog." Then he began to cry.

FIGURE 1

Courtesy of the Department of Education, The University of Chicago

of beginning readers. In Figure 1 we see the photographic record of the eye-movements of a first-grade child, made while he was reading silently.[1] In this and all subsequent illustrations the short vertical bars represent the points at which the eye paused in moving across the line, the numbers above the bars indicate the order in

[1] Ibid. p. 2.

which the pauses occurred, and the numbers at the bottom of the bars indicate the duration of the pauses in units of one twenty-fifth of a second.

In examining this record we find that the eyes paused on an average about twenty-three times in traveling across each line. It will also be noted that the eyes did not progress straight ahead all the time: after making the movement ahead to the third pause they traveled back again so that the fourth and fifth pauses were behind the third pause; similarly, in the twenty-fourth pause the eyes traveled back and fixated between the twelfth and eleventh pauses, and in the twenty-fifth pause they traveled still farther back, alighting between the eighth and seventh pauses. Another interesting feature to note is that in the pauses at the beginning of each new line the eyes invariably made their first stop some distance within the line and then had to come back to the beginning of the line to get a running start before going on; thus in the second line the first pause occurred in the middle of "into," the second word in the line, but the second pause fell back upon "r," the first letter in the first word of the line. In examining the figures at the bottom of the bars we find that the pauses are long and of unequal duration, ranging all the way from four twenty-fifths of a second to forty-three twenty-fifths. Summing up these indications, we find the following characteristics of first-grade reading:

1. The eye travels across the line in a series of *many* jerks and pauses.
2. Each movement between pauses covers a very short distance.
3. The movements across the line are often regressive rather than progressive.
4. When the eye is carried back from the end of one line to the beginning of the next, it often does not return to the right point.
5. The pauses are comparatively long and of irregular duration.

Nature of eye-movements in mature readers. In Figure 2 we see the photographic reproduction of the eye-movements of a college senior while he was reading a story silently.[1]

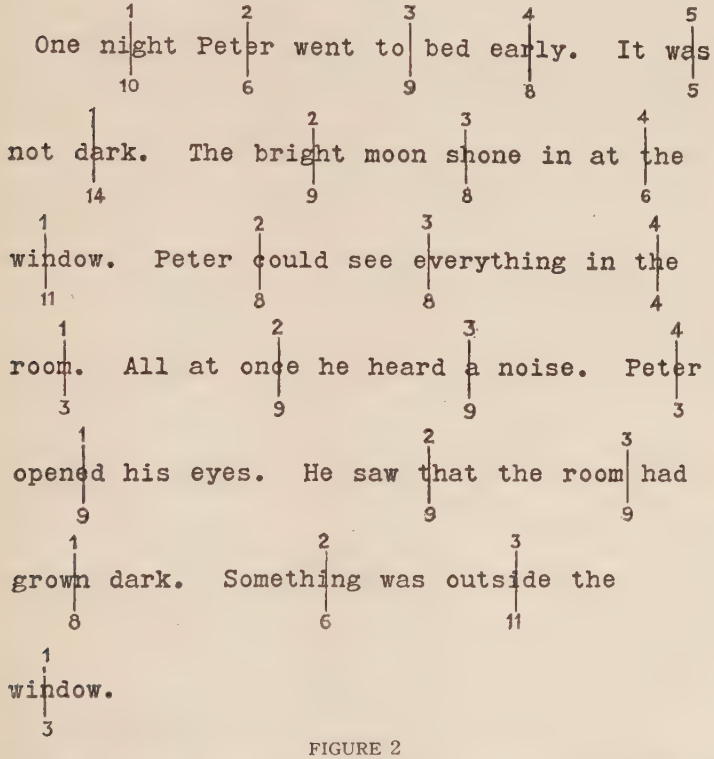
One night Peter went to bed early. It was
not dark. The bright moon shone in at the
window. Peter could see everything in the
room. All at once he heard a noise. Peter
opened his eyes. He saw that the room had
grown dark. Something was outside the
window.

FIGURE 2

Courtesy of the Department of Education, The University of Chicago

In examining this illustration it will be noted that the eye paused on an average of only four times in crossing a line, thus covering a much wider span between pauses than did the eyes of the first-grade child. In examining

[1] G. T. Buswell, Fundamental Reading Habits: a Study of their Development, chap. i, p. 3.

the numbers above the lines we note that the pauses occurred in regular order, with no regressive movements between them; we also see that when the eye had covered one line it swept back to the beginning of the new line, fixating at exactly the right point, and this enabled it to proceed without turning back again to get a fresh start. Furthermore, the pauses, which ranged from three twenty-fifths of a second to fourteen twenty-fifths, were short and fairly uniform in length when compared with those of the first-grade child.

The chief characteristics of the mature reader's eye-movements, then, are these:

1. The eye makes only a few pauses in crossing the line.
2. Each movement between these pauses covers a wide range.
3. The movements are almost always progressive and very seldom regressive.
4. The return sweep to the next line is accurate.
5. The eye pauses are regular and of comparatively short duration.

The school's task. Viewed in the light of this evidence the task of the school is plainly that of converting the raw material of the child's short, irregular, regressive movements and long pauses into the refined habits of the good mature reader which are characterized by the eye moving across the page in a series of broad rhythmical movements, pausing for a fraction of a second at regular points along the line to gather up as many words as possible at a glance, proceeding on to the end of the line with no regressive movements, and returning to the beginning of the next line with an accurate return sweep.

Effects of different methods of teaching on eye-movements. Another investigation in eye-movements which should be of interest to every primary teacher is the contrasting studies made of pupils taught by different methods, one

of which placed considerable emphasis on phonetic analysis and gave little attention to reading for meanings, whereas the other placed great emphasis on meanings and gave no training in phonics.

Photographic records were made of children taught by each of these methods. The photographic record of a child taught by the non-phonic method shows many regressive movements and many periods of intense confusion, owing to his lack of ability in attacking new words. However, additional check-ups revealed that the child was vitally interested in the meanings of the selection.

The photographic record of a child taught by the extreme phonetic method shows that the child proceeded to read across the line in a rather regular manner, methodically attacking and pronouncing each new word as he came to it, and experiencing very little confusion because of non-recognition of words. It was observed, however, that this child showed very little concern for meanings of the content. Such a result can be characterized briefly and aptly as "word reading."

Dr. Buswell's conclusion. In discussing the records of eye-movements produced by these two contrasting methods, Dr. Buswell says: [1]

> Out of the group of twelve children from the I B grade of the University laboratory school [taught by the non-phonetic method] five were unable at the end of the first semester to read accurately the modified "Little Red Hen" story. Furthermore, they had not reached the stage of development where their eyes followed the lines of print in a careful manner while they tried to read. They had, however, developed a very active concern for the meaning of the passages which they tried to read, and, in general, when they

[1] G. T. Buswell, Fundamental Reading Habits: a Study of their Development, Supplementary Educational Monograph, No. 21, chap. iii, pp. 103–105. University of Chicago Press.

failed to read the story properly they supplied a content of their own which was meaningful. On the whole, their attitude toward reading was mature to the point that they recognized clearly that the story had something to tell and that it was their business to find out what it was. Their lack of proper eye-movement habits and their inability to cope with new words prohibited them from getting the meaning accurately; but their attitude toward the process was more mature. In terms of the analogy of a skyscraper, this method evidently considers reading attitude in the same manner in which the contractor considers the steel structure. By its procedure this method would say that a correct attitude toward reading is of such great importance that it should be pushed a long way toward maturity, letting the other habits rest for the time being. With only the evidence which has so far been presented, the psychologist has no criticism of this method. He can, however, say to those using this method that sooner or later the eye-movement habits and the word-recognition elements must be developed and that finally they must become just as mature as the element of reading attitude.

The advocates of the other method, which places first emphasis upon word study, could be given the same principle. Habits of word study may be developed first, but ultimately a correct reading attitude must also be secured. This is not equivalent to saying that any method is as good as any other. It is simply stating that a method cannot be accurately evaluated by a cross-section view at the level of any particular grade. In the absence of sufficient data covering the entire interval from the beginning stage to that of maturity, a final evaluation is not in order. What the teacher can do is to use the results of analysis to determine the stages of maturity in the fundamental elements of reading. As a result she will be able to say that in certain elements her pupils are making normal progress; that in certain other elements they are considerably nearer the ultimate goal of maturity than is normally the case in that particular grade; while perhaps, in still other elements her pupils are relatively immature and will need a large amount of exercise. To make the matter concrete, the teacher might raise such questions in regard to her method and results as the following:

1. What kind of attitude toward reading do my pupils have? Do they consider reading as a process of gaining meaning or of pronouncing words? When, according to my method, should I expect a correct reading attitude to be attained?

2. Do my pupils' eyes follow the printed lines in regular order as they read? Do they depend upon their perception of the words or their memory of the story for their meaning?

3. Are their habits of word-recognition satisfactory for their stage of development? Are they able to master a new word by the method of phonetic analysis? When, in my method, should children be able to do this?

4. Is the span of recognition of my pupils developed up to the average for the grade? Do the pupils see words and phrases, or is their recognition unit smaller than a single word? Do they make many or few eye-movements in reading a single line?

5. Do they have habits of quick perception or are they slow in recognition? Can they read words from flash cards when presented at a rapid rate?

6. In observing their eye-movements can I detect many backward, oscillating movements, or is there regularity of fixation along the lines?

7. Do my pupils give evidence of fusing their words into large units of meaning, or do they read in a mechanical word-by-word manner? Does the rhythm of their oral expression display a recognition of thought units?

8. Does my method provide any specific exercise for deficiencies in these elements?

If the application of analysis produces no more immediate results than the serious attempt to answer the foregoing questions, its value will not be negligible.

While it is evident, from the flexible adjustments which pupils are able to make, that more than one method of teaching reading may succeed equally well in developing mature reading habits, one would not expect to find a large number of equally good methods. Certainly there can be no doubt that some methods are inferior and uneconomical. In the light of present school experience no one would attempt to justify the practice of using the alphabetic method of teaching reading, although pupils trained

in this manner will eventually learn to read. As has been stated, the present investigation does not yield the type of data necessary for a judgment of methods, and consequently no attempt has been made to evaluate them. It should not be inferred from this that the psychologist is not interested in methods. The problem of determining which methods are superior and which are inferior is large and significant. It cannot be solved except by following particular groups of pupils through the different stages of growth toward maturity. Its solution will require the combined effort of the teacher and the psychologist, the teacher trying out the various combinations of methods in the classroom under carefully controlled conditions, while the psychologist furnishes the scientific analysis of results which will show the degree of progress which has been made in each of the fundamental elements of reading. This is a productive field for future coöperative investigation.

Section III. Practical Applications

Now that we have discussed the chief characteristics of good habits of eye-movement and have seen their close relationship to the process of reading, let us turn to the practical classroom situation and see what the teacher can do toward detecting the stage of development of her various pupils and toward providing exercises that will aid in establishing correct habits of eye-movement.

Method of detecting eye-movements. In suggesting a method for teachers to use in detecting habits of eye-movement in their pupils, one can do no better than to quote again from Dr. Buswell, who advocates the following procedure: [1]

If a teacher will seriously undertake a few hours of practice in observing eye-movements simply by watching closely the eyes of

[1] G. T. Buswell, Fundamental Reading Habits: a Study of their Development, chap. iv, p. 143.

another person while reading, a great deal of information can be gained. If the person who is reading holds the book slightly above the level of the eye, and the teacher takes a position just at one side of the book, she will find that, with the exercise of great care, it will be possible to get a fairly accurate count of the actual number of eye-movements. The movements which are most difficult to observe are those which are very small in extent. A device for making these movements more pronounced would be enlargement of type, which of course would increase the angle of the eye-movements. It has been shown in previous investigations that variation in size of type causes only a slight modification in the average number of fixations per line, provided the number of words per line remains the same. . . . In order to provide a sample of material for use in testing the number of eye-movements of a subject, three paragraphs of the selection which was used as a basis for the silent-reading medians are reproduced in large type in Plates XLII–XLIV. The pupil should hold these paragraphs twelve inches from his eyes while he reads silently. It is suggested that the teacher proceed as follows:

In the reading of the first paragraph quickly make a tally mark for each fixation of the eye in the reading of each line. It may be easier to count the movements than the fixations, in which case the teacher should add one fixation to the number of movements for each line, since in counting movements the first or last fixation will not be counted. When the pupil has finished the paragraph the teacher should omit the first and last lines and then find the average number of fixations per line for the intervening part of the selection. If the pupil is allowed to read the paragraph only once the process may be repeated on the following day, as a check upon accuracy in counting, and if a variation is found an average of the two tests should be used. A comparison of this average with the medians in Table XVII will indicate the pupils who vary from the grade forms by a considerable amount. Since small errors in counting are likely to occur, slight variations from the medians should be overlooked.

In the reading of the second paragraph find the total number of fixations for the entire paragraph and also the total time for reading it. Multiply the number of seconds required for reading the

entire paragraph by 25 in order to reduce the time to units of twenty-fifths of a second. Then divide this total time by the total number of fixations, securing as a result the average duration of a fixation pause. Compare this with the medians in Table XVII, disregarding small variations.

In reading the third paragraph count only the backward or regressive movements of the eye. This will be more difficult, but with sufficient practice in counting and keeping tally a fairly accurate result can be secured. Find the average number of regressive movements per line, eliminating the first and last lines of the paragraph. Compare this average with the medians in Table XVII.

TABLE XVII. GRADE MEDIANS FOR EYE-MOVEMENTS IN SILENT READING [1]

	I B	I A	II	III	IV	V	VI	VII
Average number of fixations per line	18.6	15.5	10.7	8.9	7.3	6.9	7.3	6.8
Average durations of fixations	16.5	10.8	9.1	7.9	6.7	6.3	5.9	6.0
Average number of regressive movements per line	5.1	4.0	2.3	1.8	1.4	1.3	1.6	1.5

If the teacher is willing to practice several hours before attempting to use the results of her counting and will use great care in the observations, she will be able to secure results which will amply justify the time spent. Children's eye-movements are somewhat easier to count than those of adults, because their fixations are longer. With a due amount of practice the teacher will also find herself able to detect confusion periods in the reading of some children.

The paragraphs on the following page are for the teacher's use in detecting faulty eye-movements of pupils:

[1] G. T. Buswell, Fundamental Reading Habits: a Study of their Development, Supplementary Educational Monograph No. 21, chap. iv, p. 109. University of Chicago Press.

PLATE XLII

One night Peter went to bed early. It was not dark. The bright moon shone in at the window. Peter could see everything in the room. All at once he heard a noise. Peter opened his eyes. He saw that the room had grown dark. Something was outside the window.

PLATE XLIII

Tap, tap, came a noise at the window. "What is it?" called Peter. "It is I, Peter. Come to the window." Peter climbed out of bed and went to the window. There he saw a bird. This bird was so large that his eyes were as big as saucers.

PLATE XLIV

"Hello, Peter," said the bird. "Hello," said Peter. "Who are you?" "I am a Bird, Peter. I have come to take you to the moon. I heard your father say that birds cannot fly to the moon. But he forgot about fairy birds. I am the King of the Fairy Birds."

What the teacher can do to aid in the establishment of good habits of eye-movement. Perhaps the phase of this discussion with which the teacher will be most concerned is the one pertaining to the actual classroom procedure to use in aiding her pupils in developing correct eye-movement habits. An effort has been made to prescribe

EXPOSURE EXERCISE TO INCREASE PERCEPTION SPAN

Courtesy of the State Normal Training School, Trenton, New Jersey

several devices which are so practicable and easily applied that any teacher can use them in her classroom.

Increasing perception span. The "perception span" is the width of the area of the printed line which the reader recognizes during one pause. If we can train the child to take in an increasingly larger number of words at a single glance, this will enable him to make longer sweeps and fewer pauses, and consequently will increase his rate of reading. The following practices are helpful in accomplishing this aim:

1. In all blackboard and chart-reading the teacher should assist pupils to read in phrase units by sweeping her pointer or hand quickly under each complete phrase as it is read, rather than pointing to each word separately.

2. When the children themselves are using a pointer as they read from the board or chart, the teacher should remind them to "keep their pointer sliding," thereby preventing the habit of pointing to and seeing just one word at a time.

3. Short-exposure exercises may be used with great effectiveness. It is well to begin with cards containing one word and then gradually increase to two-word, three-word, and four-word phrases and short sentences. The amount of time should be decreased in successive flashings. An easy way for the teacher to keep a crude record of the time is for her to count to herself during the flashing of a card and record on its back the number of counts required for its recognition each time it is flashed.

4. Place phrases or sentences on the blackboard under a roller shade. Expose this material to the children by rapidly raising and lowering the shade, decreasing the length of the exposure as the children become more expert.

5. When it is necessary to divide a sentence on the blackboard, it should *always* be divided between phrases, as,

The big black dog ran
into the woods.

6. Let the children work in pairs on a series of practice exercises. There may be ten cards in the series, with ten phrases printed on each card. The cards should increase in difficulty, card No. 1 containing very short phrases, card No. 2 containing phrases a bit longer, and so on. One child holds the card, flashing it once for each phrase, and the other child tries to recognize the phrase and tell what it is. If he does not recognize the phrase at the first flashing, it is flashed again and again till he does. The same procedure is used for the next phrase, and so on until all the phrases on the card have been recognized. When a pupil can recognize all the phrases on card No. 1 with one exposure each, then he is permitted to work with card No. 2, and so on until all the cards have been covered. Of course the children change off in

working, first one child flashing while the other recognizes, then the first child recognizing while the other flashes, and so on.

7. Games in rapidly matching phrases and short sentences may be motivated by promoting competition in which premium is placed on speed.

8. The class may be divided into small groups, each group playing a variety of games in which one leader calls upon the others to recognize a set of short-exposure phrases or sentences which have been cut from an old primer and pasted on cardboard.

9. If the class are reading for some dynamic purpose which they are eager to pursue, they will be apt to hasten over the lines, taking in larger groups of words at a glance than they would do in unmotivated reading.

10. Occasionally the teacher may read a phrase and let the children look through a page in their book to see who can first find the sentence containing the phrase.

11. Pupils may be given training in seeing a line in a few quick pauses by being instructed to *glance* into the book to catch a line (any line) to reproduce to the class.

12. A very effective practice is to let the children do much silent reading of easy material motivated by the desire to take in at each pause as large an "eyeful" of words as possible.

Decreasing the number of regressive movements. Many of the devices described for developing the perceptual span, and those recommended for increasing the recognition-vocabulary and for increasing the meaning-vocabulary, contribute to a decrease in the number of regressive movements. Some additional and special suggestions to use for this purpose are given below.

1. In conducting chart or blackboard exercises the teacher can help toward promoting progressive eye-movements by moving her pointer or hand always *straight ahead* (pausing only between phrase groups) till the end of the line is reached, then accurately returning to the beginning of each new line with one long, well-directed sweep.

2. Short-exposure exercises may be conducted in which the chil-

dren are called upon to recognize long phrases or sentences flashed too quickly to permit of regressive movements.

3. Give the child much opportunity to read simple material with few or no mechanical difficulties to cause a retracing of any part of the line.

4. Individual remedial work should be given to children who experience special difficulty with this phase of reading.

Decreasing vocalization. The tendency of children to say the words as they read to themselves is a natural outgrowth of the beginner's attempts to make an adjustment from the use of oral language, with which he is familiar, to the use of the language of printed symbols, and for this reason it should not be dealt with too severely during the first few months of instruction in reading. As soon as children have become inducted into the process, however, the teacher should consciously set about repressing vocalization and lip-movements, because the child cannot develop habits of seeing several words at a glance as long as he stops to pronounce each word. The following devices have been found effective in breaking up this habit:

1. Make the children themselves conscious of the desirability of eliminating lip-movement as a means of helping them to be better readers.

2. Sometimes instruct them to place their fingers upon their lips while reading "to keep them still."

3. Place printed slogans about the room, such as "Fast readers use their eyes and not their lips," "Eyes are for reading; lips are for talking."

4. Watch the children during their study periods and frequently remind the lip readers to "read with their eyes."

5. It is sometimes helpful to post an honor list containing the names of all children who do not read with their lips.

6. Occasionally direct the children to read as much as they can in a given time without moving their lips; watch to see how many succeed in meeting this requirement.

7. Experiments have proved that exercises in the silent reading of interesting material under time control aids in eliminating lip-movement. However, such exercises probably should not be attempted until the latter part of the second grade.

8. Using silent reading as a method of study from the beginning prevents the extensive vocalization which accompanies the exclusive use of oral reading.

Increasing the recognition-vocabulary. Investigations have proved that lack of mastery of words causes periods of confusion in eye-movements, accompanied by many and long pauses and a large number of regressive movements. Consequently the greater number of words the child can recognize instantly, the more likely are his eyes to proceed straight ahead in regular progressive movements. Some suggestions are given below for increasing the recognition-vocabulary:

1. Have the children re-read familiar material as rapidly as they can and still get the meaning.

2. Provide abundant opportunity to read fresh material which is easy and interesting, and in which the same words occur again and again, so that the pupils may have the experience of pleasurable rapid reading unincumbered with difficulties of recognition.

3. Discuss the common difficulties of the group before a silent-reading lesson is attempted.

4. Train the children to master word-recognition through the method of context, through association with pictures, through phonetic analysis, and every known device which will give skill in recognizing words.

5. Give special motivated drill upon words and phrases causing the greatest amount of difficulty.

Increasing the meaning-vocabulary. Investigation also revealed the fact that lack of a meaning-vocabulary is evidenced by poor eye-movements. If pupils are familiar with the meaning of only a small number of words, they are apt to experience periods of confusion because of their

inability to grasp meanings. A few suggestions for improving the meaning-vocabulary follow:

1. Provide the children with broad and varied experiences in which they will come in contact with new words, and give them ample practice in using these new words in free conversation.
2. Before reading a lesson create an atmosphere by discussing personal experiences relating to the story or by giving a bit of background information which will cause the selection to be more meaningful to the class.
3. Discuss new words and their meanings when working with a selection in the class.
4. Train the children to look for sentence and phrase units instead of thinking about each separate word.
5. Provide motivated drills on phrases, emphasizing meanings.

Section IV. Summary

We have discussed the fact that for many years scientists have directed their attention to studies concerned with eye-movements in reading. We have pointed out that the chief reason why eye-movements have been the subject of so much investigation is because they are a fundamental element of the reading process, they are reliable because they are not easily controlled by the individual, and they yield clearly objective evidence. We presented evidence which shows that in the immature reader the movements are short in span and often regressive, the pauses are frequent, irregular, and comparatively long in duration, and the return sweep is inaccurate. In contrast with these habits we find that in a good adult reader the eyes proceed across the page in a series of broad progressive sweeps and quick rhythmic pauses with an accurate return sweep at the beginning of each new line. We also presented evidence that the use of different methods produced different effects upon eye-movements,

the phonetic method causing children to develop better habits of eye-movements and word-recognition but to neglect meanings, whereas in the interpretative method the reverse is true. We quoted Dr. Buswell's conclusion to the effect that all methods have to develop both these abilities sometime, and that judgment should not be passed upon any one method until its effect has been traced throughout all the grades in which it is taught, to see whether the total scheme eventually takes care of all phases of reading instruction. Finally, we suggested a method for the teacher to use in detecting eye-movements of her pupils through careful observation; and then we prescribed exercises for increasing the perception span, for decreasing regressive movements, for decreasing vocalization, for increasing the recognition-vocabulary, and for increasing the meaning-vocabulary.

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PROCEDURE

CHAPTER VI

THE FUNCTION OF THE KINDERGARTEN IN PREPARING FOR BEGINNING READING

Outline

I. Why our concepts of the kindergarten's contribution to reading have been hazy
   A. The kindergarten curriculum not labeled by tool subjects
   B. Failure to recognize the broader aims of reading
   C. Lack of unity in curriculum and methods in the kindergarten-primary fields
   D. Kindergarten and first-grade teachers not acquainted with each other's fields
II. How modern tendencies in education have operated to clarify these hazy concepts of the kindergarten's contribution to reading
   A. Effect of our changing conceptions of school objectives
   B. Effect of our newer knowledge of the process of learning
   C. Effect of our changing concept of the content of the curriculum
   D. Effect of modern movements to acquaint kindergarten and first-grade teachers with each other's fields
III. Steps which the modern kindergarten teacher can take in preparing her pupils for reading
   A. Building up meaningful concepts
      1. How meaningful concepts aid in reading
      2. How the kindergarten teacher can build up meaningful concepts
   B. Developing children's ability to speak with ease and fluency
      1. Developing vocabulary
      2. Developing the pupils' ability to use English sentences with a relative amount of skill and fluency
   C. Arousing children's interest in reading
      1. Stimulating natural curiosity
      2. Providing interesting contacts with books
   D. Providing children with informal and incidental reading experiences
      1. Formal reading in the kindergarten not desirable
      2. Informal, incidental contact with symbols to be commended
      3. Giving pupils an acquaintance with the appearance of symbols
      4. Laying a foundation for word analysis

E. Training children to think
1. Providing a rich fund of ideas
2. Building an adequate vocabulary
3. Developing facility in the use of sentences
4. Giving an opportunity to practice the steps involved in good thinking
5. An example and an application
IV. Summary

The process of learning to read is the most complex of all school activities and the ability to read is the most important of all school arts. This ability is the master key which unlocks the gateway to every other school subject and to life itself. Certainly the teaching of so complicated and significant a subject is worthy of the best efforts of our combined teaching force. Considered from the total teaching standpoint it is important that full significance be attached to the very crucial part which the kindergarten plays in initiating children into this mysterious realm of symbols. For this reason it seems advisable to devote this chapter to a study of the kindergarten situation with reference to its function in preparing for beginning reading.

Section I. Why our Concepts of the Kindergarten's Contribution to Reading have been Hazy

During a recent survey in a fairly progressive Mid-Western town all the first-grade teachers in the system were asked the question, "In what way does the kindergarten training help your pupils in the first grade?" The answers were broad and inclusive; for example, "It gives the children better control," "It helps them in handling tools," "It acquaints them with school life," and so on. Not one teacher said that the kindergarten training helped her pupils in any way in learning to read.

On the other hand, the kindergarten teachers were asked directly what they did to help the first-grade teachers with their early reading activities. Without exception they replied that they did not do anything at all with reading in the kindergarten. Although they were not teaching formal reading, the chances are very strong that they were carrying on many activities which contributed directly to the children's early reading needs, but neither they nor the first-grade teachers recognized the fact.

Although many teachers at the present time are fully aware of the contribution which the kindergarten makes to first-grade reading, rather extensive inquiry reveals the fact that there are still a large number whose ideas on this important phase of the child's early training are hazy and indefinite. There are many reasons why this is true.

A. The Kindergarten Curriculum not labeled by Tool Subjects

Kindergarteners have not been prone to break their curriculum into isolated bits, labeling one part "Reading," another "Arithmetic," another "Language," and so on. It is true that all subjects have their roots in the kindergarten activities, but they are not labeled as such, and hence many of us do not realize that progress is being made along each of these lines in the general types of activities representative of kindergarten curricula.

B. Failure to recognize the Broader Aims of Reading

As reading was formerly taught, our chief concern was that of giving children control over the mechanics of the process. Since the kindergarten did not teach formal

reading as such, it was difficult to understand how it helped to any appreciable extent in aiding children to gain control over the fundamentals of this subject.

C. Lack of Unity in Curriculum and Methods in the Kindergarten-Primary Fields

For many years the kindergarten has to a large extent drawn its subject matter from the child's immediate environment and social contacts, and has done its teaching largely through the method of free and spontaneous activity on the part of the pupils, whereas the first grade has drawn the content of its curriculum largely from subject matter selected and logically arranged from an adult point of view and taught through the teacher's method of "pouring in knowledge."

When the kindergarten pupil in the conventional public-school system reached that very important point in his childish life in which he was "promoted" to the first grade, the joy of the great achievement was all too often unexpectedly and completely submerged in his futile efforts to adjust himself to screwed-down seats and his fluctuating immature mind to dull drill work with abstract symbols in reading. The child was suddenly transplanted from the homelike environment of a kindergarten in which the keynotes were play and freedom and spontaneity, into a first-grade room enveloped in an atmosphere of drill work and more or less rigidity and repression. Such a decided break in methods and curricular content made it difficult for kindergarten and first-grade teachers to harmonize their points of view and meet upon a common ground in formulating clearly defined measures for continuous development in reading or in any of the other subjects.

D. Kindergarten and First-Grade Teachers not acquainted with Each Other's Fields

Often the kindergarten teacher was not in a position to provide her pupils with the best preparation for reading because she was unacquainted with the work being done in reading in the first grade. Since she did not know what the early instruction in reading was to be, of course she was unable to anticipate her pupils' needs to the best advantage and meet them.

Conversely, since many primary teachers are unfamiliar with the kindergarten work, they had no fair conception of what preparation for first-grade work the children were receiving in the kindergarten, and hence they were unable to capitalize their pupils' previous experience to the best advantage in inducting them into the new work necessary in the first grade.

Section II. How Modern Tendencies in Education have operated to clarify these Hazy Concepts of the Kindergarten's Contribution to Reading

We are living in a period of reconstruction and are utilizing ideas which resulted from the World War in making the coming generation a more efficient and happy race. In studying the history of nations we invariably find that every great war is followed by a period of marked progress in all lines of civilization, but never before has a reconstructive period been responsible for such radical changes in the field of education as our present one. We shall not attempt a general discussion of these changing emphases in education, but shall touch only upon those which have been directly influential in defining the kindergarten's work in preparing for beginning reading.

A. Effect of our Changing Conception of School Objectives

For many years the chief aim of the primary school was to equip the child with facts and processes — formal subject matter to be learned outright without adequate relation to the life in which the child was to live. Modern educational objectives are broader and more vital. They have to do with the deeper and more permanent values, such as developing dynamic and wholesome attitudes, right habits of conduct, deeper and finer appreciations, acquaintance with social problems and institutions, and a sympathetic understanding of the relationships of contemporary life.

These broadening aims are felt in each of the special fields. Instruction in reading is no longer concerned *only* with giving the child control over the mechanics of the process, but it also takes into account the development of appropriate attitudes toward reading, abiding and varied interests in reading, and fruitful experience through reading. As soon as one glimpses these broader aims of reading, new vistas of possibilities in the way of the kindergarten's contribution are immediately opened up. Laying a foundation in desirable habits, attitudes, and ideals has always been a prominent objective in kindergarten teaching. Even though the kindergarten does not teach formal reading, we can clearly conceive of its activities functioning as a means of developing these more extended aims. Thus we see this movement for more inclusive objectives in education as a potent influence in more closely identifying the aims and practices of the kindergarten with the general scheme of teaching reading.

B. Effect of our Newer Knowledge of the Process of Learning

One of the most significant and far-reaching results of research in modern psychology is the changed conception of the way in which children learn. For many years the learner's mind was thought of as a passive receptacle into which the teacher might pour knowledge at will, having it crystallize into whatever form she intended and remain safely tucked away until such time as the child might have need of it in his far-distant future. Modern psychology has proved that this is an unnatural and ineffective way of learning. The most favorable situation is one in which the child's mental processes function while he himself is an active agent, living and growing through his own activities and experiences. This newer concept of the process is directly responsible for the tendency to introduce more activity, freedom, and spontaneity into the primary school. This movement in turn has been instrumental in inaugurating a more active program in teaching beginning reading. For example, one of the most common methods of introducing formal work in this subject has come to be that of letting children read their own compositions based upon some activity taken from their experiences; and, since oral compositions are entirely in keeping with the kindergarten curriculum, a definite avenue of approach is open to the kindergartner who would prepare her pupils for their first work in reading.

C. Effect of our Changing Concept of the Content of the Curriculum

Any attempt to achieve the broader aims of education through a method which takes advantage of our newer

knowledge of the process of learning is bound to bring with it a change in the type of subject matter taught. We have now forsaken the idea of pouring specialized subject matter into separate compartments in the learner's mind; our chief concern at present is to give the child so much experience in reacting to life situations that he will be able successfully to meet and control the problems of his present and adult environment and social contacts. If his training is to consist of such experiences, then we must draw our subject matter from life itself. Hence the growing tendency to bring a succession of enterprises and activities into the classroom which are recognized by the learner as real-life situations. As far as possible, in carrying out these lifelike units the different branches of subject matter are taught as needed in furthering the enterprise, rather than as isolated subjects in themselves.

Since we in the primary field are becoming accustomed to this idea of less differentiation between subjects, we can more readily understand how reading and all the other subjects may have their roots in kindergarten activities and admit of early development in that field, even though each is not labeled as such.

D. Effect of Modern Movements to acquaint Kindergarten and First-Grade Teachers with Each Other's Fields

The general movement to unify the kindergarten and first grade has been responsible for causing all the more progressive teachers' colleges and normal schools to institute a unified program of training in which prospective kindergarten and primary teachers are made equally familiar with both fields.

In many public schools kindergarten and primary teachers now avail themselves of the excellent practice

of keeping in close touch with each other's experiences. Frequent conferences are held, and many visits are paid back and forth. The kindergarten teacher may leave her pupils with her assistant for a short time while she visits the first-grade reading classes, and the kindergarten assistant may also go into the first-grade room and take the class for a period while the first-grade teacher visits the kindergarten.

When the kindergarten teacher knows what the first-grade teacher is doing in reading, she is able to work more intelligently and more directly in preparing children for this work; and when the primary teacher knows just what her pupils have been doing before they came to her, she is better able to build upon their experiences in such a way as will take advantage of all that has gone before in their training.

Section III. Steps which the Modern Kindergarten Teacher can take in preparing her Pupils for Reading

With the background discussion above in mind we are now ready to proceed with concrete suggestions of procedure. The measures described in the remainder of the chapter are in harmony with our best psychological knowledge of early childhood, they are entirely practicable for the kindergarten teacher to adopt, and their application will be found to be fruitful in developing readiness for reading in kindergarten children.

A. Building up Meaningful Concepts

Perhaps the greatest contribution which the kindergarten can make to the children's first steps in reading

is that of enlarging and enriching their experience so that they may come to the first grade with a large stock of ideas, a rich store of distinct and vivid concepts, and a multitude of meaningful associations.

How meaningful concepts aid in reading. *Meaningful concepts aid in recognition.* Numerous experiments have resulted in evidence that the content of a word and its use in a meaningful situation are distinct aids in its recognition. Any first-grade teacher can corroborate this evidence from her own experience if she will but recall the great ease with which her pupils have learned some word which is filled with meaning for them, such as "candy" or "automobile," as contrasted with the difficulty they experience in learning abstract words, such as "is" or "can," which mean nothing to them when in isolation. Such evidence shows plainly that wide experience in the kindergarten with the things treated of in the content of early readers will fit the children to be easily taught to recognize the words which represent these things.

Not only does a background of concepts facilitate the recognition of words, it also aids children in finding out new words for themselves through the context of sentences. The context clue is one of the most intelligent and speedy means of recognizing new words. When children read a sentence in which all the words are known except one, they very frequently guess this one from the general meaning of the sentence. For example, in reading the sentence "The rabbit has a short tail," if the children recognize all the words in the sentence except "tail," and they have had previous experience with rabbits, they are more than likely to guess "tail" as being the word needed to complete the meaning of the passage.

Meaningful concepts aid in interpretation. Reading is essentially a matter of meanings. Whenever we read in

life we read because for some purpose which we have in mind we need the message which the printed page conveys to us. We read the "Stop" and "Go" signs so that we shall know when to cross the street; we read the directions for making a beaded bag so that we may make the bag correctly; we read the newspaper to find out what

BUILDING A COMMUNITY PROJECT IN A KINDERGARTEN
Courtesy of the University of Chicago Elementary School

is going on in the world about us; we read a bit of fiction for the pleasure it gives us. In every instance we read for meanings. Children's first contacts with reading should be of such a nature that they too may read for meanings from the very outset. This necessitates the provision of experiences of the background upon which early reading materials are based, so that children may have an apperceptive basis for interpreting what they read. Symbols without meanings are but empty shells; to fill these

shells with the meat of meaning we must provide clear, rich, full background concepts. If the kindergarten did no more than this, it would have its rightful part in preparing children for beginning reading.

How the kindergarten teacher can build up meaningful concepts. Now that we have seen the important bearing which meaningful concepts have on the teaching of beginning reading, let us consider what steps the kindergarten teacher can take in building up such concepts in connection with the materials contained in primers and first readers. All these activities can be carried on in connection with units of work and at the same time be made to function in the preparation for reading.

Providing first-hand experiences and direct observations. Abundant provision should be made for excursions to points of interest in the neighborhood and for all types of experiences and contacts, both in the schoolroom and outside, that will invite direct observation and invoke intelligent inquiry and free conversation. Suggestive activities are listed below.

1. *Nature excursions.* Taking a walk to see birds, ducks, chickens, goats, squirrels, shade trees, fruit trees in fruit or in flower, ice, frost, dew, spider webs, ant hills, etc.

2. *Industrial excursions.* Visiting a creamery, a bakery, a fire station, an automobile factory, a railroad yard, a house under construction, etc.

3. *Social contacts.* Giving birthday parties, holiday parties for fathers and mothers, visiting sick classmates, visiting other classes, etc.

4. *Experiences with raw materials.* Making jelly, butter, gingerbread, cookies, grinding wheat into flour, etc.

5. *Play activities.* Playing active interesting games, dramatizing their own and other people's experiences; for example, playing house, playing cafeteria, playing fireman, etc.

6. *Constructive activities.* Making a village with its stores, churches, theaters, schools, libraries, etc.; making a park with

its trees, flowers, birds, zoo, swings, slides, boats, etc.; making a playhouse with rooms, furniture, rugs, draperies, etc.

Providing vicarious experience. In addition to first-hand experiences the teacher may draw upon vicarious experience as a means of enriching her pupils' concepts. Telling or reading interesting stories to the children and discussing the stories with them will serve to increase their fund of information, will provide them with vivid pictures, and will deepen and define their concepts of relationships.

B. Developing Children's Ability to speak with Ease and Fluency

With the exception of building up meaningful concepts, there is probably no phase of her work in which the kindergartner can make a greater contribution to primary reading or to her pupils' general growth than that of assisting them to develop ease and freedom in expressing their thoughts.

Kindergarten children are naturally talkative, and they are in a plastic stage in which language habits are readily formed and new words easily acquired. Realizing this, the wise kindergarten teacher provides the wealth of experience and abundance of practice necessary for building up a rich vocabulary and the fluency in its use which will serve her pupils well in all their future living, both in school and out.

So far as reading is concerned, a command of oral English is an absolute essential in the mastery of this subject. Reading is in reality only one step removed from the child's world of auditory symbols, which has been extended into the new realm of visual symbols representative of the spoken words with which he is already familiar. Let us consider the phases of language development that have an important bearing on reading.

Developing vocabulary. Since reading is primarily concerned with meanings, there is every reason to believe that the child who understands the meaning of a large number of spoken words and is familiar with their use in sentences is better equipped to undertake the next step — working with the symbols that represent these words. It is suggested that the kindergarten teacher procure from the first-grade teacher a list of the words included in the readers used in the first grade. With this as a basis, she can consciously set herself to see that her pupils have such background experiences as will give meaning to most of the words in their future reading vocabulary, as well as to provide practice in using these words in natural situations. She will not restrict her efforts to this narrow field, of course, but will try to incorporate these words into her vocabulary-building activities, so far as it is possible to do so without interfering with her program of general development.

Let us consider the various avenues through which a kindergarten teacher may work in enriching her pupils' vocabulary.

Provision of new experiences. A certain five-year-old child knew nothing of airplane nomenclature. One afternoon he visited an aviation field with his father. Upon returning home he glibly and appropriately used such words as gas tank, propeller, and pontoon. This illustration shows the value of enlarging children's vocabulary through vital interesting experiences in which the child has practice in using new words as they function in real situations. The many and varied contacts and experiences which the modern kindergarten provides for its children, coupled with free conversation concerning these experiences, are the best possible means of enlarging and enriching their vocabulary.

Presenting literature. Literature abounds in words and expressions new to the five-year-old. Some children just naturally "pick up" new words they hear in this way; others need the practice that comes from discussing or reproducing the story or poem and using the new words in it in other situations.

Emulating example. Children who come from cultured homes where they associate with older people of broad experience and rich vocabulary invariably possess a more extensive vocabulary than those who come from homes where the parents have narrow social contacts and a correspondingly meager vocabulary. The teacher's example is even more stimulating to the imitative instinct of some children than that of their parents because of the great significance they attach to everything she says or does. The kindergarten teacher who says "I am going to choose someone who is responsible to water the plants" will hear the new word "responsible" coming back to her in true boomerang fashion as a dozen or more little throats chorus "I'm responsible!" Realizing the effectiveness of her example as a means of building vocabulary, the efficient kindergartner will ever be on the alert to introduce words which children will find useful in their early reading activities as well as in their general conversation.

Developing the pupil's ability to use English sentences with a relative amount of skill and fluency. In addition to our efforts directed toward building up a stock of new words, we must concern ourselves with growth in the power to put words together in sentences and to use these sentences in voluble and accurate expression. This ability contributes directly to reading, inasmuch as those who speak fluently will be better able to read fluently and will have such control over sentence structure as will enable them to anticipate meanings and to follow the thought with

considerably more ease than otherwise would be possible. Modern kindergartners direct their training in the use of sentences through two general channels, as described below.

Spontaneous expression. Abundant opportunity for free and spontaneous conversation is a powerful agent in developing facility in expressing ideas. Wide contacts with interesting people and things and the free use of language arising from interest in these contacts are the best possible mediums to use in insuring growth in this important art. Excursions, trips, experiences, construction work, individual and group projects, and play, all furnish impetus to conversation which should be given an outlet during the carrying out of these activities. In addition to this incidental conversation many of the best schools are now providing a daily conversation period given over entirely to free discussion of things in which the group and different individuals are interested: experiences which different pupils have had outside the school and which they wish to share with the others; discussion of objects of interest brought in by different children who wish to show their possessions to the others; discussion of projects the children either intend to carry out or are in the process of carrying out; and so on.

Group and individual compositions. In addition to the free conversational activities described above, children should have experience of a slightly more highly organized character. To afford such training, group and individual compositions are prepared in which the teacher guides the children in expressing themselves in well-rounded sentences which are organized in such sequence as to make a complete unit of thought. The following undertakings lend themselves admirably to such treatment: composing invitations; letters to absent friends or absent classmates; reports on interesting experiences; dialogue necessary for some class dramatization; "speeches" to be used in announcements, oral invitations, or plays; plans for group projects; directions for construction work or processes, such as making jelly.

C. Arousing Children's Interest in Reading

One of the most vital problems in the field of reading is that of arousing children's interest in reading, and creating within them a desire to pursue this activity. The number of adults who are not interested in reading is appalling. If one wishes proof of this statement he has but to survey his own circle of friends and associates and estimate the percentage who care little or nothing about reading books, many of whom are even indifferent to magazines and newspapers.

We depend upon reading as the chief medium for keeping us in touch with the world, as the most important stimulus for intellectual inspiration and advancement, and as the most effective means of furnishing us with the information necessary for making wise and fair decisions concerning the affairs of state. When we consider the significance of reading in connection with all these big issues of life, we come more fully to realize our social and civic responsibility for doing all that we can to establish permanent interests in reading.

Aside from these values for future life, all interest in reading that the kindergarten can develop has an immediate value. Psychologists are agreed that interest is a fundamental factor in any type of economical learning. When an individual is keenly desirous of entering into an activity, there is available a fund of energy that is not present when the learner is in a state of indifference or distaste. Moreover, interest begets attention, and learning is acquired more rapidly and permanently when the learner is working at a high level of attention than when his mind is wandering over a wide field of interests.

All this emphasizes the importance of the kindergarten's contribution in building up interest in reading. Some chil-

dren, of course, come from homes in which their interest has been stimulated by a cultural environment, but many of them do not have this advantage. In any case the kindergarten teacher is urged to tap her every resource in capitalizing any interests in reading which may already exist and in establishing and furthering the development of new reading interests in every possible way. Let her, then, have as one of her foremost objectives that of sending her pupils to the first grade with a full awareness of the joys which reading holds out to them, a deep interest in reading, and a dynamic desire to read.

Interest in reading or any other activity does not burst forth spontaneously whenever we are ready to use it; it comes rather as the result of a steady growth. Let us consider some of the means the kindergarten teacher may employ to promote the growth of interest in reading.

Stimulating natural curiosity. All children are naturally curious, as is evidenced by the countless questions they ask and the experiments they continually carry on. In the educational scheme of yesterday this natural curiosity was repressed as soon as the child came to school. He was made to sit still and listen to such things as the *teacher* wished to present. All is changed in the modern kindergarten, where the child's own interests and desires are taken into account; and as a result we find his healthy curiosity stimulated and utilized in extending his interests to every phase of life and, incidentally, to books, which contain the further information that he craves in satisfying his natural curiosity. Such stimulation may be accomplished by such measures as these:

Following up the children's own questions. Make an effort to answer the children's inquiries by excursions, by explanations, by sending letters of inquiry to people who can give the desired information, and so on.

Guiding careful observations. Children should be aided in making minute and analytical observations as a means of finding out about things in which they are interested. For example, Jean brought a beautiful nasturtium to school one morning. The teacher held it up for the class to see. Someone asked, "How does it look inside?" The teacher aided the class in observing the stamens with their darkened tips, the soft golden pollen, and the rich color within the calyx.

Encouraging experimentation. Children should be encouraged to make experiments which will aid in satisfying their curiosity. John wondered what the seeds in the wild-cucumber pod were like. Upon being told that he might find out, he carefully removed the outer coat from the pod and exultantly brought the tiny network seed container and its shining black seeds to the teacher that the rest of the class might share in his discovery.

Providing interesting contacts with books. The kindergarten room should be liberally supplied with attractive picture books and early readers of the better type. These books should be placed on a low table or in some other conspicuous place where they will invite the children's inspection. If possible the books should be changed frequently, new ones obtained from the library being added for short periods, or the children may bring in some from time to time.

Letting pupils look at attractive books. The children should be encouraged to look at these books freely and frequently.

Teacher reading from books. If the teacher occasionally reads an interesting story to the children, it will help them more fully to realize that books contain pleasurable experiences which they might enjoy more copiously if they were able to get these stories for themselves by reading.

At other times she might read from a book a bit of information which answers some question that has arisen in class discussion. In this way the child becomes interested in books as a source of finding solutions to his problems.

Again, children may bring a book to the teacher and ask her to

read a sentence or passage that tells something about a picture in which they have become interested. Such reading by the teacher will satisfy their curiosity concerning the picture, and the satisfaction thus derived will serve to increase their interest in reading.

Making books. The children will enjoy making picture books in connection with their class projects. For example, a class which was interested in spring birds greatly enjoyed making a class bird book containing post-card pictures of common birds which they had collected and illustrations of birds drawn by different members of the class.

Books containing their own compositions are always of interest to kindergarten children. Such books may contain group or individual compositions about interesting experiences pupils have had. The teacher writes these down as they are given and later has them typewritten or mimeographed for the children to place in their books, together with appropriate illustrations collected or drawn by the pupils themselves. The occasional preparation of such a book should aid considerably in increasing children's interest in reading and in books in general.

D. Providing Children with Informal and Incidental Reading Experiences

Formal reading in the kindergarten not desirable. Pushed by demands to show tangible results in subject matter in order to justify their existence as a necessary cog in the educational scheme, some teachers have introduced formal reading activities into the kindergarten curriculum. This is an undesirable and unnecessary practice. In general authorities do not believe that the minds of pupils of kindergarten age are sufficiently mature to enter into the complex mental processes necessary for the formal study of reading. Moreover, the concepts of average kindergarten children are not sufficiently distinct, nor is their facility in handling language sufficiently developed, to enable them to abstract meanings from printed sym-

bols. Because of these combined reasons it seems best to refrain from forcing the complex processes of beginning reading on minds which are too immature to receive them. The kindergarten day is short, and there are many, many things to be done in the way of preparing an adequate background for the more formal reading activities; if this is done well, it is all that we have a right to expect.

Exception should be made, of course, in the case of a few pupils of superior native capacity who have met the objectives of kindergarten training, who are ready to engage in the more formal work with symbols, and who are eager to participate in the reading activities. Such a group may well receive instruction in reading during the latter part of the kindergarten year. With this exception, however, it seems best to follow the established order of things, leaving the kindergarten to its own activities and deferring formal instruction in reading until pupils enter the first grade.

Informal, incidental contact with symbols to be commended. Although there is little justification for teaching reading as such in the kindergarten, there is every reason to expect the kindergarten teacher to take advantage of her manifold opportunities to provide her children with informal reading activities. By exposing them to reading situations she can accomplish much in the way of acquainting them with the fact that reading symbols really stand for meanings — that they contain interesting messages for those who have mastered the magic art of recognizing them. There are many ways to accomplish this without interfering in the least with the informal kindergarten program. Several suggestions are given below for exposing kindergarten children to symbols. Although pupils are not required nor expected to read these messages, engaging in the activities described will serve the purpose

of giving them an acquaintance with the characters and their uses and an idea of the reading process.

Giving pupils an acquaintance with the appearance of symbols and an awareness of their significance. *Observing signs during excursions.* Lead pupils to observe symbols and to discover that they have different meanings by calling their attention to the name of the school, to "Stop" and "Go" signals, to names of streets, to signs in store windows, to words on waste-paper containers, to fire-alarm boxes, to letter boxes, and so on.

Labeling activities. Label children's lockers, rubbers, individual crayon boxes, and the like with the children's names. Label the class containers for various materials, such as paste, scissors, crayons, etc., with their appropriate names and place "In" and "Out" signs on the doors. In carrying out units of word the children themselves often wish to print such signs as "Grocery," "Bakery," "Meat Market." Acceptable signs can be made with the use of a rubber printing outfit.

Writing on the blackboard. Write on the board lists of the children's suggestions for various phases of project work. Write necessary memorandums on the board, such as the children's orders for school lunches; for example "Milk 6, Cocoa 8, Crackers 10, Apples 3," and so on. Write group or individual compositions as they are given by the children, to be typed or mimeographed later for a class book. Write the names of committees and their members on the board; as, "Plant Committee — George, Alice, Louise, Tom." Write simple rules or directions on the board; as, "Work quietly."

Placing messages on a bulletin board. A bulletin board put in a conspicuous place may be used to advantage for many purposes, some of which are listed here. A morning surprise sentence may be put on the board; for example,

"We are going for a walk today," "Mary is going to bring her pet rabbit this afternoon." Children take a keen interest in such "surprises," as is evidenced by the eagerness with which they gather about the board each morning and the avidity of their attempts to find out the import of the message. Other ways of using the bulletin board in the kindergarten are listing things to be remembered, such as questions the children have asked about some topic they are studying; listing the different things they have decided to do in a project; putting up a program for a class entertainment.

Using a picture chart. Kindergarten children delight in having a wall chart upon which the teacher places attractive pictures. Mother Goose pictures, with the rime printed beneath in each case, are especially appropriate. Other attractive pictures of child life, pets, birds, etc. will be enjoyed by the children. In such cases the teacher may print a single line underneath the picture; as, "This girl is making a garden."

Using books. An early interest in reading may be established through informal contact with books. Some types of such training are as follows: letting children follow the context with their eyes while the teacher reads; letting them try to tell what the legend underneath a picture says by interpreting the picture; letting them try to tell the story in a picture book by following through a series of pictures; leading them to observe the names of different storybooks; teaching them to care for books by turning the pages carefully, handling the books only when their hands are clean, and putting the books away in an orderly manner when they are not in use.

Laying a foundation for word analysis. One of the fundamental elements of word analysis is the ability to recognize and discriminate between different sounds. The modern

kindergarten contributes much to the development of this ability through the following activities:

Rimes and jingles. Repeating rimes and jingles which the children wish to say just for enjoyment, and creating jingles of their own, are profitable training in the rudiments of phonetic analysis. So keen is children's interest in rimes at this stage that repeating rimes and creating jingles often becomes a veritable obsession with them. All this is excellent ear-training and should be encouraged.

Clear enunciation. If special attention is given to building up habits of clear enunciation the children will be in a better position to "hear" the different elements in words when they take up the study of word analysis in the grades.

Vocal work. The large amount of vocal work done in the kindergarten, such as imitating bird and animal cries, calling, playing echo, etc., all help toward developing a true ear for discerning differences of sound.

E. Training Children to Think

Thorndike says that "the comprehension of textbooks . . . is far above the level of merely 'passive,' or 'receptive,' work. When the reading of textbooks . . . is merely passive, or receptive, comprehension will rarely result . . . 'To read' means 'to think' as truly as does 'to evaluate' or 'to invent' or 'to demonstrate' or 'to verify.'" [1] In its fullest sense, then, reading is not confined to the literal recognition of symbols alone, but rather is a complex thinking process — a process of word-recognition plus thinking, thinking with and beyond the facts which the symbols convey. From this standpoint it is obvious that training in thinking will contribute to the child's total ability to read.

Given the native capacity, the ability to think can be

[1] E. L. Thorndike, "Reading as Reasoning: a Study of Mistakes in Paragraph Reading," *Journal of Educational Psychology*, June, 1917.

developed in children just as well as any other of the abilities. We can learn to think by thinking just as truly as we can learn to swim by swimming. Teachers are constantly exhorted to make children think, but in spite of this urging too little progress has yet been made in developing this important ability.

Granted that the ability to think is a process which may be improved, let us consider what the kindergarten teacher may do to help her children to grow in this direction.

Providing a rich fund of ideas. If children are to have practice in thinking they must have something to think about. The section on developing meaningful concepts (p. 113) discusses this phase of the kindergartner's work.

Building an adequate vocabulary. The child must have within his vocabulary a sufficient stock of words to enable him to label in his mind the things he thinks about. The discussion on the development of vocabulary (p. 118) covers this point.

Developing facility in the use of sentences. To think clearly, the pupils must have practice in piecing their vocabulary together into meaningful sentences such as they need in handling their ideas. This point has also been taken care of under "Developing the pupil's ability to use English sentences with a relative amount of skill and fluency" (p. 119).

Giving an opportunity to practice the steps involved in good thinking. What are the steps necessary to clear thinking? How can the kindergarten teacher provide practice in using them? Let us see.

STEP 1. *Providing a novel or complex situation which offers a problem for solution.* The first step necessary in setting the thinking process into action is that of being confronted with a novel or complex situation which provides occasion for solving a problem. Since kindergarten

children are young in the world's experience, they are confronted on every side with situations which are new and strange to them and which open up some inquiry in their minds. The rôle of the teacher, then, is that of constantly being in a state of readiness to take advantage of any problem-solving situation that may arise and use it as a source of fruitful stimulation to her pupil's thinking powers.

STEP 2. *Trying to solve problems.* After the children have been properly stimulated by the problem-solving situation the next step in developing ability to think is that of actually engaging in the mental processes necessary to find the solution to the problem. These processes consist of considering various clues which occur to us, discarding some, pursuing others, until we finally get together the right combinations of details to effect the solution.

The kindergarten teacher's part in furthering this step is plainly that of encouraging children to suggest many different solutions to their problems, discussing the full possibilities of each, deciding upon certain ones to try out, and holding final conclusions in abeyance until proof has been obtained.

STEP 3. *Verification.* The last step of the orderly thinking process is that of seeking verification, or proof, of our attempted solution. After we have arrived at the seemingly best solution, this solution must be put into effect and tested out to prove its validity. In furthering this step of the thinking process the kindergarten teacher will see to it that proposed solutions are actually applied to the real situation which called for a solution and that results are carefully noted as a means of checking up on their effectiveness.

An example and an application. One day the biology teacher brought a young rabbit into the kindergarten

room. The children wished to keep it as a pet, but there was no suitable place for it in the room. Thus the children were confronted with the *problem* of making a pen for the rabbit — the first step necessary in training the thinking process.

Many suggestions were given for meeting this difficulty. Each was discussed in turn, and the children finally decided that the most feasible solution was that of building a pen with blocks, and they proceeded to build such a pen. Thus we see the application of the second step in the process of thinking — that of trying to solve the problem.

As soon as the pen was completed the children put the rabbit into it to see whether or not such a pen was really satisfactory. This action exemplifies the third step in the process of orderly thinking — that of seeking verification by testing out the attempted solution.

Although these first activities in connection with the situation provided practice in all the important steps in the thinking process, they constituted only a small part of the total activities which eventually resulted from the problem, and which afforded opportunity for continued training in good thinking, as will be evidenced by a further description of this project.

Almost immediately after the rabbit was placed in the block pen, he proceeded to push it down and come out. It was plain to be seen that a block pen was not a suitable home for a rabbit. Someone then suggested the plan of making a pen of wooden boxes. This seemed to be a feasible line to follow, so one boy found a box about $8 \times 12 \times 8$ inches, and another boy took two boxes of this size and nailed them together. Four other boys worked on a box about $33 \times 33 \times 36$ inches. The boys who were working on the smaller boxes nailed wooden strips

across the entire front of their cages, leaving no place for putting the rabbit into the cage. The boys who were working on the big box provided for this contingency by leaving a suitable aperture near the roof of the box. The three cages were then exhibited to the whole group, and some time was given over to judging the work from the standpoint of the rabbit's needs. The big box was chosen as the most suitable, and the rabbit was consigned to his new home. Within a short time it was noted that while the aperture near the roof served well for putting the rabbit into the cage, it was difficult to take him out that way. So the children decided to take two boards from the back of the box and make them into a door. This was done, and the door was fastened on with two wooden buttons. The buttons did not work satisfactorily, and were eventually replaced with leather hinges. Someone suggested improving the appearance of the cage by painting it. This plan immediately gave rise to many more problems: how to get the paint, what color of paint to use, and how to apply the paint. Eventually the pen was completed to the satisfaction of everyone concerned, and it still remains in the room as an attractive and useful addition to the kindergarten equipment.

Surely the excellent training in thinking which such kindergarten activities so generously provide will qualify kindergarten pupils better for undertaking the thoughtful process of reading.

Section IV. Summary

In this chapter we have shown that there are many teachers who have hazy and indefinite ideas concerning the function of the kindergarten in preparing for beginning reading. We have discussed the fact that these hazy con-

ceptions are rapidly clearing up as a result of our broadening educational objectives, our newer knowledge of the learning process, our adoption of more vital subject matter, the general movement of colleges to furnish a unified kindergarten-primary course, and the tendency for teachers in the field to keep in closer touch with one another's work. In the light of these discussions we proposed several concrete measures which the kindergarten teacher may take in preparing her children for first-grade reading: by means of building up meaningful concepts, by developing ability to speak with ease and freedom, by arousing children's interest in reading, by providing informal and incidental contact with reading symbols, and by affording training in the processes necessary to clear thinking.

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CHAPTER VII

ARRANGEMENT AND EQUIPMENT CONDUCIVE TO READING

Outline

I. Recognition of characteristics of childhood
II. The modern kindergarten better equipped than the average first grade
III. General appearance and equipment of a first-grade room
IV. Summary

Section I. Recognition of Characteristics of Childhood

The school of forty years ago with its inadequate schoolrooms, its meager furnishings, its bare walls, and its scanty supply of books could not stimulate desirable social activities and habits. Our ideas of education have changed much in this time. Instead of fitting the child to the curriculum, we are attempting to fit the curriculum to the child. We are taking into consideration the interests and characteristics of child life so that we can build upon these interests. We are finding out that the normal healthy child is active both mentally and physically for the greater part of the day. He is never passive, but will put forth the most persistent effort to accomplish the things in which he is interested and, moreover, will show initiative and inventiveness if we give him sufficient opportunity. Children like to do things with their hands; they like to investigate new places or new scenery, and afterwards they frequently wish to reconstruct places and objects that interested them during their explorations.

Section II. The Modern Kindergarten Better Equipped than the Average First Grade

Fortunately the modern progressive kindergarten is much better equipped to receive children than the average first grade, owing to the fact that it has always believed in the educational value of play and in self-expression through self-activity. Hence it is only natural that the modern kindergarten provides atmosphere and materials which will stimulate the child to live naturally in the schoolroom. He lives naturally because he is given opportunity to reproduce the life that goes on around him.

> If we should happen to look into a kindergarten room before school, . . . it will usually be large in proportion to the number of seats provided, and there will be a sense of space and freedom for movement incident to the type of furniture employed. This will be of a movable sort, indicating that the occupants are not expected to remain in one spot. The chairs will probably be arranged in such fashion as to suggest social intercourse, and the tables will be large enough to serve for real work. Finished work in great variety and partly completed schemes of construction will usually be seen. A glance into the ample closets and cabinets will reveal an absolute or a relative wealth of materials of all kinds — blocks, clay, wood, textiles, paper, cardboard, toys, crayons, scissors, paste, paint, dishes and other housekeeping utensils, picture books. . . . Everything indicates that the children are to be participants in an active, happy, industrious community life.[1]

If we were to look into the formal primary room we should be likely to see a room equipped with fixed desks, perhaps a table or cupboard with supplementary readers, phonetic charts, and a small cupboard for supplies. In less formally equipped primary rooms may be found a few pictures on the walls, a plant in the window, and

[1] Annie E. Moore, The Primary School, pp. 9–10. Houghton Mifflin Company.

perhaps a sand table and such supplies as scissors, paste, and colored crayons. The majority of first-grade rooms do not have sufficient space to carry on the more interesting and worth-while projects — those that can be worked on the floor in a large way so as to permit of natural child activity and construction.

Why should we assume that children undergo some radical change at the time they emerge upon their sixth year of life, so that they do not care any longer to be active, to construct, to investigate, and to learn by first-hand experience? Our reaction is that we wonder why we have not projected the ideas and equipment of the kindergarten into the first grade sooner; why it has taken us so long to realize that richer and more stimulating equipment belong just as much to the first grade as to the kindergarten.

Section III. General Appearance and Equipment of a First-Grade Room

The room should be attractive. The first-grade room must, first of all, be attractive, certainly as attractive as the home from which the child has come and more attractive than some of the homes represented by many in the group. It should contain such materials and equipment as will lead toward resourceful, energetic, and interesting activity. Conditions of teaching, environment, and lack of means may make it impossible to carry out precisely all the suggestions here made; but the teacher who has initiative, enthusiasm, and industry will find ways of achieving results by modifying and substituting. She may use some of the suggestions, if not all.

The room itself. The first-grade room should be large and bright. The wall should be tinted a soft color so

that curtains of blue or orange or some warm tint will harmonize with the general color scheme.

Movable chairs and tables. Movable chairs and tables are extremely desirable in every first-grade room and even in every primary room. The tables can be folded up and placed out of the way when more floor space is needed. Small chairs and small tables at which two or three children can sit are excellent, especially when there is need of informal group organization. Some primary rooms have several oblong green tables with attractive little green chairs placed at each table.

Cupboards and shelves for storing materials. "O for enough cupboards in which to place materials in order!" This is the cry we hear everywhere, for in order to carry on any activity in which materials are involved, it is necessary to have cupboards and shelves in which to arrange the materials in an orderly way so that they may be found and replaced without loss of time. A cupboard divided into small spaces, one for each child to keep his things in, is most practical. If these cupboards are long low ones under the windows, the top may be used for a bowl of goldfish, a bird cage, or any kind of nature material. The materials for observation are low enough to be well within the child's range of vision. Corner cupboards are good because they utilize a space that otherwise would not be used to such good advantage.

There are a number of ingenious ways for securing places to store materials. One first-grade teacher who did not have individual lockers for the children talked with them about the situation, and finally one child suggested bringing an orange box from the store where her mother bought her groceries. The children accepted this suggestion, and all brought orange boxes, which were placed together in a row under the windows. The boxes

answered the purpose and were used for the rest of the year. In this case resourcefulness was rewarded, for the supervisor asked that a set of lockers be made for all the primary rooms in that system. Another ingenious teacher who had no bookcase in her room substituted a chiffonier which had no mirror. The drawers were removed, and the children rubbed off the varnish and stained the bookcase to harmonize with the room. As a result they had a five-section bookcase.

The workbench. Each room should have a workbench with a vise attached to each end, or a number of small workbenches. Workbenches of the correct size for the children may be secured from leading mail-order houses for $5. Good workbenches may be made from old tables, especially from what are called kitchen-cabinet bases, the bins and drawers of which may be used for tools and materials. Committees of children may be formed to remove the old and perhaps cheap varnish with sandpaper. Then they may stain and wax the top, but leave it free from any finish other than a good wax oil.

Tools for the workbench. Vises with anvil attached are made in midget sizes for children's use. Very good vises for kindergarten and for first, second, and third grades may be purchased for $1 apiece, sometimes for less. For the same price hardware stores have good short saws which they declare can be used indefinitely for sawing any material that children need to saw. Smaller tools not requiring hard steel, such as hammers, brace and bits, squares, and coping saws, may all be purchased for a small price at five-and-ten-cent stores. It is estimated that an equipment sufficient to start with can be secured for about $5.

Materials for building. 1. *Floor blocks.* If funds are available the teacher may purchase a set of large floor

blocks; if not, she may have a set cut at a planing mill or made by a local carpenter. The following list [1] gives the number and dimensions of the blocks and boards used by a group of forty children in the University Elementary School of The University of Chicago.

50 blocks 3 × 3 × 12 inches
100 blocks 3 × 6 × 6 inches
150 blocks 3 × 6 × 12 inches
50 boards 1 × 3 × 24 inches
25 boards 1 × 3 × 30 inches
25 boards 1 × 3 × 36 inches
15 boards 1 × 10 × 72 inches
20 boards 1 × 3 × 18 inches

One teacher, using this list as a guide, worked out the following table as desirable for what is called 2 × 4 lumber:

100 blocks 2 × 4 × 6 inches
100 blocks 2 × 4 × 12 inches
50 blocks 2 × 4 × 18 inches
25 blocks 2 × 4 × 24 inches
25 blocks 2 × 4 × 36 inches

This teacher states that the children in Grades I and II measured, sawed, and sandpapered these blocks during their activity period. Another teacher allowed the pupils to shellac each block with orange shellac for appearance, cleanliness, and durability. Either clear varnish or shellac may be used.

2. *Other materials.* The following are suggestive for use in various types of project work:

a. Fruit-crates for making large structures such as stores or houses.

b. Beaver board for roofs, floors, and shelves.

c. Large packing boxes.

d. Cardboard boxes.

e. Board lengths for different purposes.

f. A roll of wrapping paper mounted on a roller is a convenience when one is handling a large amount of paper. The roller com-

[1] S. C. Parker and Alice Temple, Unified Kindergarten and First-Grade Teaching, p. 86. Ginn and Company, Boston, 1925.

plete costs only $4 and lasts for a year. The children use the paper constantly for painting, drawing, writing, and construction.

g. Desirable use can be made of a set of builder boards such as are sometimes sold at toy stores, but an improvised set made by the manual-training department is a possibility. A screen playhouse made of builder boards can be used in various imaginative plays in connection with the social studies.

Toys for boys and girls. 1. *Playhouse furniture.* Desirable playhouse furniture consists of a doll bed or cradle, a doll buggy, a tea table with a set of dishes, a little stove, and a rocker. If these are not provided, the children can be encouraged to bring their own. Offering such a suggestion is usually all that is needed to equip the playhouse with everything necessary.

2. *Dolls.* Rag dolls, children's own doll visitors, dolls of other lands, and Raggedy Ann and Andy should have a prominent and permanent place in the playhouse of first-grade children.

3. *Accessory and miscellaneous equipment.* Accessory equipment, such as cooking utensils, carpet sweepers, brooms, mops, dustpans, washtubs, wringers, clothesline, ironing boards, and clothespins, can be added as surprises or brought by the children for use and then taken home. Miscellaneous toys, such as boats, ships, trains, trucks, and automobiles, may be added to the equipment one at a time, or they may be brought by the children as conversation lessons in the social studies suggest their use in play and construction.

Below is a list of materials and tools for construction, modeling, and drawing. It includes materials best adapted to the needs of the kindergarten and the first grade.[1]

[1] S. C. Parker and Alice Temple, Unified Kindergarten and First-Grade Teaching, pp. 90–91. Ginn and Company, Boston, 1925.

a. Materials for woodworking:

Carpenter's bench and tools
Hammers (best type is the small claw hammer with a flat head — not too light)
Saws (crosscut, No. 8)
Nail-puller
Wood file
Brace and bits of several sizes
Vise
Ruler
Nails (wire, with flat heads and of several sizes)
Glue
Sandpaper
Soft wood: bass, poplar, or white pine; strips of different widths and thicknesses and odd pieces from the manual-training shop, including circular pieces for wheels
Fruit-crates, cigar-boxes, chalk-boxes, etc.

b. Materials and tools for paper construction:

Construction paper
Manila paper
Bogus paper
Oak tag
Unprinted newspaper
Crêpe paper
Tissue paper
Gilt and silver paper
Wrapping-paper
Corrugated paper
Paper plates
Paper napkins
Paper bags — collected and brought by the children
Paper dolls to be dressed
Ribbon bolts — supplied free by some dry-goods stores
Pasteboard boxes — collected by children and teacher
Milk-bottle tops
Meat-skewers

Slats — white and colored
Adhesive tape
Collar buttons
Paste and brushes
Pins
Paper-fasteners
Thumb tacks
String
Scissors
Conductor's punch
Paper-cutter

c. Sewing and weaving materials:

Cloth (substantial, but easily handled, and of different colors and designs)
Thread
Coarse needles
Pins
Scissors
Thimbles
Small dolls to dress
Cotton roving
Jute
Strips of cloth for rag rugs
Strawboard looms made by the children

d. Modeling materials:

Clay
Plasticene
Sand-table and sand-toys
Water colors and brushes
Shellac
Oilcloth or clay-boards
Aprons

e. Materials for drawing and painting:

Crayons
Water colors
Fresco paints

Enamel
Drawing-paper
Manila paper
Unprinted newspaper
Chalk
Easels and drawing-boards
Paintbrushes of several sizes

The bulletin board. The bulletin board is a frame that incloses material on which may be mounted pictures with labels, printed directions on strips of tag board, specimens of the children's work, or group compositions printed on tag board. The material of the bulletin board should be porous so that the work may be mounted easily with thumb tacks and taken down frequently to make way for other work. Cork sheeting, cork floor covering such as is used on the floors of public buildings, and beaver board are the best materials to use. Strips of oatmeal wall paper may be placed above or below the blackboard. This paper resembles cork sheeting and is a cheap substitute that can be replaced often. The bulletin board should be of good size and should be fastened to the blackboard frame or on a side wall in an open space within easy reach and sight of the children.

Pictures. Large and attractively colored pictures are useful in providing varied and interesting experiences to first-grade children. They must deal with subjects familiar or interesting to children, and should be used to illuminate the different activities in the school curriculum. Some may be chosen because they are childlike and beautiful. An attractive first-grade room should contain some of the Mother Goose pictures drawn by a good artist.

The front cover of *Good Housekeeping* each month shows a lovely child picture drawn by Jessie Willcox Smith. The presence of the various materials described make the

children feel, "How many interesting things to see and do are here!" This feeling stimulates spontaneity and is itself conducive to the formation of ideas.

Description of a first-grade room. Perhaps a description of a first-grade room in the second month of school will give us an idea of the goal toward which a first-grade teacher may work. She may not be able to reproduce all the ideas described either as to physical conditions or as to curricular attainment, but some she will be able to put into effect. This first-grade room is large and sunny. The walls are tinted a soft brown, the curtains are a cheerful blue, and there are window boxes filled with ferns and flowering plants. On a ledge is a bowl of goldfish. The tables are low, and around each are placed four small chairs. On the wall are mounted pictures of children's activities: a little girl in a swing, a boy with his dog, and a small child kneeling at the edge of a pond. A picture mounted on tag board shows a child starting to school. Beneath the picture is printed "Jack is going to school." A framed picture shows an Indian near his fire, and another a scene in a Dutch harbor. At the back of the room and extending across the major portion of the wall is a cupboard with individual spaces where each child deposits his belongings. On this cupboard is a portable phonograph with a chart hanging above it entitled "Music We Like Best." Near this are an easel and a box of paints bearing the printed sign "Come and paint." Against the wall are a toy table and chairs with dolls seated at the table, toy dishes are in a cardboard cabinet above an improvised cupboard made from a wooden box, and above this housekeeping outfit hangs a picture of children playing house. Spread out on one table are bogus paper and manila paper in two sizes, large and small.

The manila paper is for drawing, and the bogus paper for construction. Attractive books for children are to be found on another table, with the chairs arranged in an informal and inviting fashion. Some of the books observed are "The Three Pigs," "Peter Rabbit," "Mother Goose," "The Here and Now Storybook," "For Days and Days," and "A Child's Garden of Verses." There are numerous printed signs in the room. On one door is a placard bearing the direction "In," and on another "Out"; a printed strip says "Tomorrow is Halloween," and another reads "We go to Assembly today." Perhaps the most outstanding features are the various printed charts hanging here and there on the walls. Some are more or less permanent, such as the calendar at the front of the room or the chart entitled "Things We May Do." Along one blackboard are hung seven or eight charts. The first one lists the room duties and the names of the children performing them. There was an incentive to watch this first chart very carefully because the teacher told the children that names might be changed any day. Other charts contained Mother Goose rimes, another was about crayolas, and several concerned activities in which the group participated. In the back of the room is a store made by the group and called The University Market. It is large enough to permit of actual buying and selling by the children.

A visitor entering this room would no doubt say to herself: "Here is a room belonging to children and really used by children. The teacher is a guide and helper rather than a commander." Certainly such a room provides varied and interesting experiences for the pupils. Without a background of experiences reading is meaningless. The equipment and organization of such a room tend to

promote the acquiring of experiences. Such experiences lead to alert attitudes and to questioning, and so stimulate a desire to read. With a background of experiences and a desire to read, the child is led naturally and easily into the process of reading.

Section IV. Summary

This chapter explains how modern education takes into consideration the interests and characteristics of child life in furnishing and equipping a first-grade room. Since the normal child is active and curious and wishes to express himself through various forms of activity, the first-grade room of the progressive school contains materials that lead toward this self-activity. Specific suggestions are given concerning the furniture and equipment of a modern first-grade room, showing in what ways some of this equipment is conducive to reading.

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CHAPTER VIII

READING IN THE FIRST GRADE

Outline

I. General purpose and specific objectives of first-grade reading
   A. General purpose of first-grade reading
   B. Specific objectives for instruction in first-grade reading
II. Essential activities in first-grade reading
   A. Reading in connection with numerous school activities
      1. The bulletin board
      2. The blackboard
      3. Matching pictures
      4. The newspaper
   B. Oral and silent reading based on charts
      1. Kinds of charts
      2. Procedure with charts
      3. Type lesson showing procedure in composing and reading a chart
      4. Mechanical make-up of a chart
      5. Summary of values of chart work
   C. Training pupils to read from books
      1. When books should be introduced
      2. Presenting the books
      3. Types of reading lessons
   D. Informal reading tests
   E. Phonetic analysis and word-recognition
   F. Seat work related to reading
   G. Independent and directed reading for pleasure
      1. Book table for generating pleasant associations with books
      2. Children who read more rapidly silently than orally excused from regular reading period
      3. General procedure in reading for pleasure
III. Amount of time devoted to reading
IV. Desirable levels of achievement
   A. Materials
   B. Habits and skills
   C. Testing results
V. Summary

In Chapter VII the classroom equipment conducive to reading in the first grade was described. In Chapter VI we discussed the various means which the kindergarten could take to prepare the pupils for instruction in reading. It was made clear that frequently it is necessary to use many of the same measures in first-grade reading for two reasons: first, there is no dividing line between kindergarten and first-grade teaching, and second, since a great many children do not have the advantage of kindergarten training, we must make provision for this preparation period during the early part of the first grade. Therefore some of the procedures introduced into the kindergarten period will be more fully described in relation to reading activities carried on in the first part of the first grade.

Section I. General Purpose and Specific Objectives of First-Grade Reading

A. General Purpose of First-Grade Reading

The majority of first-grade children are prepared to begin reading either at the beginning of the first grade or very early in the year and are able to complete satisfactorily all the requirements of this period by the end of that grade. As has been discussed in Chapter III, there will be some pupils who need more constructive activities to train them in the use of ideas, and others may need language training, so that the first-grade teacher may have to postpone reading for these children and provide opportunity for more and varied experiences, for expression of ideas, and for contact with pictures and books. Such activities may continue for several weeks or months. Too early or too formal an introduction to reading kills the child's interest before it has time to awaken, and we know

that work done without interest is poorly done. A child can be forced to a simple physical task and can hardly fail to accomplish something in the course of an hour; but the mind is more elusive and not so easily controlled, and if the child is compelled to read over and over something in his reader which holds no appeal for him he is sure to become bored and to allow his mind to wander. Through ideas of progressive education applied to our work in beginning reading we are trying to build in the young child a love of reading for information and pleasure; we are endeavoring to lead him to use techniques that are economical and effective, and are at the same time helping him to discover his own problems and to encourage the use of his initiative in solving these problems. If reading is to be a means of acquiring information and experiences and a means of enjoyment, the first grade is the time for the child to make pleasant associations with learning to read and to take a lasting impression of pleasure and happiness in reading. He must from this early time think of printed material as a body of symbols standing for meaning, and not as standing for letters and words. Our first big aim, then, is to create within the child a desire to read, so that the process of acquiring this ability is for him a pleasant, natural, and simple procedure.

B. Specific Objectives for Instruction in First-Grade Reading

The following specific objectives in terms of attitudes, habits, and skills may be listed for the initial period of reading:

1. To stimulate keen interest in reading and a desire to read independently.
2. To secure new and vicarious experiences in reading.

3. To introduce pupils to the thought-getting process and to develop the ability to read independently and intelligently simple passages such as are found in first-grade readers.
4. To associate meaning with written or printed symbols.
5. To develop thoughtful reading attitudes.
6. To have simple passages rapidly interpreted.
7. To secure a wide span of recognition, with regular forward movement and accurate return sweeps of the eye.
8. To develop reasonable speed in reading.
9. To gain in accuracy as well as in speed.
10. To gain independence in word-recognition.
11. To enlarge the reading vocabulary.
12. To make reading an outgrowth and a part of every activity carried on in the schoolroom.

Section II. Essential Activities in First-Grade Reading

The purpose of this section is to explain the need and value of the different types of reading activities necessary for carrying out the objectives described in Section I. The following types of activities serve to attain the objectives listed above and to secure rapid progress in first-grade reading.

A. Reading in Connection with Numerous School Activities

At various times during the school day reading can be made to play a significant part. It may be observed that reading is being learned not only in the period during which the teacher is putting the pupils through the regular course of training but, in a larger and somewhat more fundamental sense, in most of the life of the schoolroom. The early weeks of school are the time for the child to get an acquaintance with the situations that call

for reading, to see how reading functions before he does any actual reading in books. During this time he is having many rich experiences in the various subjects and so is forming a background of associations out of which reading will be a natural outgrowth. Not only during this early period but throughout the year, reading should be an outgrowth of all natural activities and social situations in the schoolroom.

The bulletin board. *The bulletin board as a source of reading activity.* The normal child who finds himself in an interesting environment where there are books, pictures, and printed forms of communication becomes interested in the things about him and begins to ask "What does it say?" Huey says that the method of learning to read is just the same as learning to talk. It is the method of imitation. The infant is born into an environment of human language. He hears sentences without getting their meaning and babbles forth all the sounds that he hears. Gradually he catches glimpses of meaning in what is said, a little here and a little there, without troubling about the obscure parts but getting first the general drift of what is said and making the finer distinctions as time goes on. He continually repeats what he hears, and uses it with the meaning which seemed to attach to it from the speaker's tones and actions. So with little friction or trouble he comes to understand all that is said to him. A few years later he finds himself in an environment of books, papers, notices, and printed language as omnipresent as the spoken language. All of it has little meaning at first, but he begins to be interested in these printed and written things, showing his interest by asking "What does it say?"

The bulletin board stimulates a desire to read. The bulletin board may be used to stimulate a desire to read by

having posted on it at various times pictures, pictures with printed explanations, announcements, and items of interest to the class. At first these are prepared by the teacher, but as the children gain in power of expression and ability to read they may prepare some of the material. It is better to print the material on tag board, since the printed form is a surer preparation for reading in books. Moreover, printed material on the bulletin board is in a more permanent form than it is if written. At first, naturally, the teacher will need to call attention to the material; but very soon — sometimes on the second day — the children of their own accord will go to the board to see what new thing has been posted. They look upon the material as lovely surprises and soon develop the habit of running to scrutinize it the minute they reach school in the morning. One child will be joined by another, groups of two or three will go to the board together, perhaps a more timid child will watch for a chance to look at it unobserved by his playmates; but all the children ultimately become interested in the new items or pictures and are eagerly intent on finding out what the board says. At the close of the day mothers who call for their children are led over to the board and are informed, "I can read it." Even older brothers and sisters are apt to stop in the primary room that boasts a bulletin board, to see what new and interesting material has been posted. It should be, and generally is, a focus of interest for all the first-grade children and their friends.

Other values of the bulletin board. The bulletin board is a relief from the ever-approaching menace of monotony and too much routine; it introduces changes and variety by putting before the children material which has a strong appeal and which is closely related to the activities of the school. The bulletin board is a timesaver for the teacher

also; for through the printed reminders placed upon it, it serves to keep fresh in the children's minds the duties for which they are responsible, the materials they will need, the time when they should do certain things, and so on.

General description and use of the bulletin board. The board itself should be at least 30 × 40 inches so that the material need not be crowded, it should be fastened substantially to the wall in a prominent place, and it should be attractive both as to choice of material and as to arrangement. The children's active interest should never be allowed to wane because the same material is posted for too long a time. Notices or announcements should not be allowed to remain after they are no longer needed.

A picture of some child engaged in a familiar activity or shown with some friend or pet is sure to draw attention and interest. If the picture has a sentence of description or explanation printed beneath it, a child soon learns that by reading this he is sure to find out something about the picture. Many pictures are then posted on the bulletin board, perhaps first alone and then, on the following day, with a brief accompanying description; sometimes the picture includes the description on its first appearance. The pictures should be fairly large and preferably colored. They may be chosen at random (that is, any that would be interesting to children), or they may be presented in a series, all bearing relation to one central subject or person. For instance, an attractively colored picture of a little boy may be shown to the class. The children may discuss the picture freely, talking of what the little boy is doing or would like to do, or what he may possess. They may suggest different names that would be appropriate for him and finally choose one. The action of the next picture

should be obvious. A simple statement about it, beginning with the name suggested, may accompany it. After this will come a succession of pictures showing the little boy doing various things. The story of the little boy may lead toward the subject matter of a farm or community project, or perhaps, even a nature-study project. Pictures illustrating some phase of community life or of nature may appear on the bulletin board. Perhaps pictures which illustrate a story read in the book may appear from time to time.

Often in beginning work on a project children are led to discuss the various things they will need to make or need to include. As these suggestions are made the teacher usually writes them on the board or on paper. The wise teacher may make use of a timesaving device by printing the list as a reference for refreshing the children's memories when they forget any of the items.

The teacher may post on the bulletin board the duties for different children to perform, such as watering plants, arranging chairs, or getting materials ready. The children can readily see that it takes a great deal of time each day to remind them of these things and that it saves time for them to read the directions on the board. Such directions may be

> Mary, please water the flowers.
> John, put ten sheets of drawing paper on the table.
> Katherine, please feed the doves.

At first the children will not be able to do more than recognize their own names; but they are so eager to be of help that the minute they see their names on the board they take pains to find out from the other children or from the teacher what their duties are. The slow as well as the bright ones are interested in reading that leads to doing.

Certain notices are posted as aids to memory: materials to be used on a certain day for a certain class in drawing or painting; reminders of special days; and so on.

We have mentioned most of the many valuable uses of the bulletin board. Each teacher, however, will find in her own school uses which will help to arouse and maintain the children's interest in reading. The following is a summary of bulletin-board procedure:

1. Children form the habit of looking at the bulletin board each day to see what new thing is posted on it.
2. Every day or every other day the teacher places on the board a picture of child life and a sentence. Her purpose is to awaken the child's interest in printed matter.
3. The teacher places about the room sentences and pictures taken down from the bulletin board.
4. The teacher uses these sentences for silent-reading lessons.
5. The teacher eventually places on the bulletin board sentences without pictures.

The blackboard. Directions may be written on the blackboard, and questions and answers of how to do things may be quickly written and erased. The authors have in mind a skillful art teacher in an elementary school who made such use of the blackboard on the first day of school in a first grade. The children had bought crayons, paper, scissors, lead pencils, and rulers, and, of course, were fairly aching to use them. The art teacher walked in and said to them, all sitting wide-eyed and eager, "I want you to take something out of your desks to work with, and you must watch carefully, for I am going to write on the board one thing that you will need." While the children were still attentive, she turned to the board and wrote the following words:

Take out your crayolas.

Perhaps not a child could recognize what she had written. She said, "Today I shall read it for you, but tomorrow I hope some of you can read it for yourselves." So she read, "Take out your crayolas." This the children did speedily and happily. "Now is everyone ready to watch while I write something else for you to take out?" Needless to say every little body sat expectantly while she wrote

Take out your manila paper.

Again she had to read to the children, emphasizing the word "manila," since they had two kinds, white and manila. It may be added that no matter how much drill there was on "manila," it was frequently called "vanilla." Each day that the art teacher came into the room she went through the same procedure: she stepped to the board and wrote a sentence, waited until that material was taken out, and then wrote the next direction on the board.

Matching pictures. The teacher may use Mother Goose pictures or pictures which she cuts from the covers of popular magazines or buys in inexpensive books at the five-and-ten-cent stores. She may mount these pictures on construction, or bogus, paper and have sets of pictures of vegetables, wearing apparel, pets, barnyard animals, fruit, kitchen articles, furniture, etc. She prints on a piece of tag board the name of each article and labels one set. The game is to attach the right name to the right picture. The teacher should have enough sets so that each child may have one. The child plays with the two sets first, the pictures which are labeled and those which are not labeled. The two sets of pictures may be spread out on the table or floor and the duplicate pictures arranged in pairs. The separate printed cards are matched to the pictures which have no printing by matching them

with the ones that have. Finally the guide cards can be dispensed with, and the children can match the titles or names to the unlabeled pictures. To play matching games with Mother Goose pictures or other pictures, each child must be provided with a set. The set consists of (1) a

READING CHARTS COMPOSED BY CHILDREN IN CONNECTION WITH A CAFETERIA PROJECT

Courtesy of the Washington School, San Diego, California

picture with the name attached, (2) a picture with no name attached, and (3) a set of printed words to correspond to the attached names.

The newspaper. The school newspaper is in imitation of the grown-up people and usually consists of a sheet of paper on which are printed items of news of interest to children and to their mothers. Generally the children dictate the items to the teacher, who first prints them and posts them on the bulletin board. She then has copies

of them made so that the children may read them together in school and take them home to read to their mothers and fathers. Some of the items may be

Helen was absent today.
We give a play at Assembly tomorrow.
It is "The Sleeping Beauty."
We have a vacation next week.

B. Oral and Silent Reading based on Charts

Kinds of charts. Reading based on charts is of inestimable value in the first grade. Since we wish the children to realize from the first that reading is a thought process, the charts composed by them are expressions of their own thoughts, and they become interested in reading their own material. It is familiar, and it gives them pleasure to recall ideas they have expressed. Reading is thus introduced in an imperceptible way, and the child is reading before he is aware of it. He is reading about interesting familiar experiences told in childish language, hence there are no vocabulary difficulties.

Charts recording a common experience or excursion. The children had been on an excursion to their school garden. When they returned, the teacher said to them: "When people do many interesting things they write about them to keep track of them. I wonder if you would like to keep track of your trip." The result was this chart:

We went to the garden.
We picked some flowers.
We saw a squirrel.
We saw a bee.

The following chart was composed by the children after they had been in school about a month longer:

We had a good time today.
We made some butter.
We put cream in the churn.
We said, "Come, butter, come."
The butter came.

A chart in connection with the teaching of farm life was as follows:

We made a farm in our room.
It has a house.
It has a barn.
We made many things for it.

Charts recording rules for conduct. Such charts as the following are composed by the children in connection with the teaching of civic ideals.

We shall keep the room neat.
We shall be polite.
We shall not push nor crowd.

A more advanced first grade composed the following chart, which assuredly presents lofty ideals:

We will be quiet in the hall.
We will walk in the hall.
We will walk up and down stairs.
We will pick up paper from the floor.
We will be polite.
We will be responsible children.

Charts composed about things brought to school. If a child brings something unusually attractive or interesting to

school to show to the children, a chart may be written about it by the group. The group may make such a chart as this:

This is Mary's doll.
It is big.
It is pretty.

John brought his phonograph to school.
It is little.
It plays "Humpty Dumpty."

Informational charts in connection with community life, science, or health. Informational charts similiar to the following may be composed about subjects in the social studies, nature study, and hygiene.

The cow gives us milk.
The sheep gives us wool.
The pig gives us meat.

Horses give us rides.
Horses help the farmer.
They can pull wagons.
They can pull plows.

Miss P— gave us some bulbs.
They are tulip bulbs.
We planted them.

We should sleep with our windows open.
We should eat vegetables.
We should eat fruit.
We should drink lots of milk.

Charts describing pictures composed by the group. Interesting pictures form excellent material for charts. They may show animals, children, children's activities, food; they may illustrate poems, holidays or seasons, farm life, or any phase of home or community life. Such pictures should be conducive to spontaneous expression. For instance, the teacher may show a bright-colored picture of Santa Claus starting down the chimney with his pack of toys. "Who is it we are thinking a great deal about these days?" "Yes; Santa Claus. When does he come?" The chart composed by the group reads as follows:

This is Santa Claus.
He is coming down the chimney.
He has a bag of toys.
He has toys for all of us.

This is Mary.
Mary is cutting bread.
Mary likes bread and milk.

This is Jane.
She has three kittens.
Jane said, "I like my little kittens."

Riddle charts. Riddle charts may be composed by the teacher and be posted on the bulletin board or hung on the wall to surprise the children, or they may be composed by the group as a whole. Perhaps some child will think of a riddle and dictate it to the teacher, who will print it for the class to read.

It has two eyes.
It has a big nose.
It has a very large mouth.
It is round.
It is yellow.
What is it?

It is in a jar.
It is brown.
It can hop.
What is it?

Charts recording individual experiences, composed by individuals. Children like to see their experiences related by them in oral form appear later in printed form on charts.

I had a baked apple for breakfast.
Apples grow on the farm.

I went on a picnic Saturday.
We made a fire.
We had a good time.

Poems composed by individual children. The following is a poem composed by a second-grade child

Little bluebird
  Up in a tree;
She says, "Spring's coming!"
  So do we.

Frisky little birdie
  Flying up a tree,
That's a little sparrow
  Making fun of me.

Poems and words to songs. Children enjoy reading poems and words to songs that have been put on charts.

I love little Pussy,
  Her coat is so warm,
And if I don't hurt her,
  She'll do me no harm.

JANE TAYLOR

Come, butter, come! Come, butter, come!
Johnny's at the garden gate,
Waiting for his butter cake;
Come, butter, come! Come, butter, come!

TRADITIONAL[1]

Picture charts for reference. Charts having pictures of farm products are referred to frequently by the children.

Fruits that grow on the farm.
Things made from flour.
Vegetables from the farm.

Procedure with charts. Procedure with charts resolves itself into two phases: composing the chart and reading it after it has been composed. The greatest value is attached to charts when they are composed by the group. If the children are to have pleasure in recalling their thoughts which are expressed on charts, certainly there must be some pleasure and spontaneity in the expression. The prerequisite for charts composed by the group must be a pleasurable and interesting experience or activity. (This does not necessarily mean that the content of the curriculum must be so rich and varied that even the informational charts come as a result of project activity and experience.) A monotonous teacher and a monotonous school will never bring forth a series of live, interesting charts. The charts hanging on the wall indicate the kind of teaching that is going on. If children are to talk they must have something to talk about, and if they have ideas to express they should be given opportunity to express them. If they have made butter, or gone to the park, or built a city in their community-life period, or watched some eggs hatch, certainly they can evolve a

[1] Songs of Childhood. Ginn and Company, Boston, 1923.

pretty fair composition if they are given a chance. Teachers have been known to conduct the composing of the chart in this way:

Where did we go yesterday?
Answer. We went to the park.

What did we do first?
Answer. We fed the squirrels.

What did we see?
Answer. We saw a robin.

Such a cut-and-dried procedure leaves no opportunity for the child to speak spontaneously. Better first allow the group to talk over the good time they had when they went to the park, to comment on what they saw and did. Then the teacher might say, "I wonder who can think of a good sentence to begin the story of our trip?" Perhaps several will be allowed to give sentences, and the class can decide which they like the best.

McMurry says that there should be a weighing of values, a judging and comparing in every lesson.[1] Some lessons admit of more spontaneity than others, of course, and some offer more leeway for imagination than others, but the skillful teacher will never proceed with the composition of a chart story by asking questions that will admit of only one answer. By so doing she thwarts all originality of expression. Many teachers ask this question: "Should it be called a group composition or a chart composed by the group when all the members of the group do not contribute?" Certainly not every member of a group, whether composed of fifteen children or forty, can contribute a sentence; but the opinion of the whole group

[1] F. M. McMurry, Elementary School Standards, chap. ii. World Book Company, 1914.

should be asked; as, "How many like John's?" "Who can think of a better word to use?" "Do you think that sentence is all right?" There are likely to be a few children who are afraid to venture one word, and occasionally a child is found who takes two or three months to adjust himself and who seems utterly tongue-tied. Do not the conversation and contributions of others in the group help these children to formulate their ideas? Such children have been known to emerge from their shells later in the year and contribute joyously and helpfully to the efforts of the group.

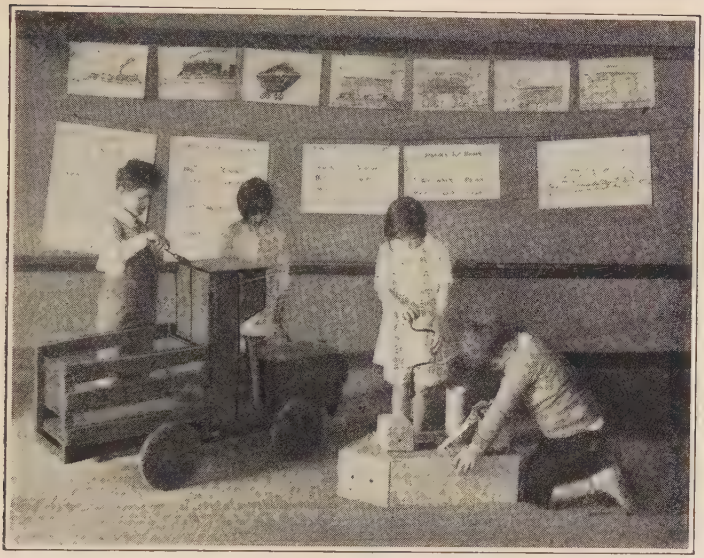
Type lesson showing procedure in composing and reading a chart.[1] The following lesson is offered as suggestive for a beginning chart lesson composed by the children about the school activities. The steps of procedure are shown.

Motive for composing chart. One morning, in the beginning of the school year, a first-grade teacher said to the children: "Yesterday after you had gone home a friend of mine came into the room and asked: 'What do the children in this room do? What kind of things do they do?' I thought that perhaps this morning you would like to write on the blackboard the things we do. Then, when visitors come in, and we aren't here, they can know what things the children in this room do. Should you like to do that?" The children were eager to coöperate in this plan.

Oral discussion first. "All right," said the teacher. "You tell me, so that I can write it on the board after a while. What shall we put first?"

One child suggested "We play in school." "Yes; but before we tell that, what is it that we are really telling about?"

[1] Taught by Miss Marjorie Hardy of the Elementary School of The University of Chicago.



THIS SHOWS HOW READING IS AN OUTGROWTH OF A FIRST-GRADE TRANSPORTATION PROJECT, "HOW FOOD COMES TO THE CITY"

Courtesy of the University of Chicago Elementary School

One child responded, "About the things we do in school."

"All right; then let's call it 'Things We Do in School,'" and she wrote the title on the board. "Now what do we do?" A child answered "We read in school." "What else?"

Another child said "We play."

"Anything else?"

As no child responded quickly the teacher asked, "What did we do at the blackboard yesterday?"

"We wrote," two children answered.

"Yes. So we write in this room, don't we? What do you do when you go to Miss ——?"

"We sing," one replied.

"Yes," said the teacher, "we all like to go to her, don't we? We have such good times with her."

Writing compositions on the blackboard. "Now what shall I write first?"

"We sing in school."

"Yes, but we could say it in even fewer words than that. Our title is 'Things We Do in School,' so what could we say?" Alice said, "We sing." "Yes," said the teacher and wrote it down. "Now what else do we do?"

With almost no effort came the sentences "We write," "We play," "We read," until the following chart was formed:

THINGS WE DO IN SCHOOL

We sing.
We write.
We play.
We read.

Reading the chart. The teacher then said, "Let us all read it through." This the children did, the teacher guiding them by running her finger clear over to the period for each sentence. Then two or three children took turns reading the whole composition by slipping the hand along under the line as it was read. Then they were asked "Who can find the sentence which says 'We write'? Who can find the one which says 'We play'? Who can find it first? Who can find 'We sing'? Erase it. Who can whisper in my ear what the sentence that is left says?" A child whispered it. The answer was evidently correct, for the child was told to erase the sentence. "Who can tell what the title says? All right, Jack, erase it. Tomorrow we are going to have the story printed on a chart."

Reading the chart in printed form. The next morning the teacher asked the children about the chart they had made the day before. They were able to tell her what it was all about. She then pointed to the tag-board chart hanging on the board with its print to the wall, and asked, "What do you think I have here?" Immediately came the answer "The chart." "Yes; yesterday we saw it written on the board, and this is the way it looks when it is printed," and she turned the chart toward them and said, "Will you show me how many of you can read it in the printed form as well as in the written form?" She had a strip of tag board three inches wide and as long as the width of the chart which she used for a marker to aid the children in keeping the place. The children all read the chart in unison first, the teacher shifting the marker as they read. Then four or five children each read the chart through, keeping the place by use of the marker. "Who can find the title 'Things We Do in School'? Who can find the sentence 'We sing'? Who can find 'We write'? Who can find 'We play'? Who can find the sentence 'We read'? As the child read the sentence he always used the marker.

Matching sentences and placing them in the container chart.[1] The teacher then held up some strips of tag board and said, "Have you any idea what I have in my hand?" Some child said, "More printing." "Yes, I made two charts just alike, and I cut one of them into lines. How many lines must I have in my hand?" The children counted from the big chart, "One, two, three, four, five." The teacher then said, "Now we will match the lines and put them in this chart," and she hung up a container

[1] The container chart, which is sometimes known as the Garboard Chart, or Plymouth Chart, is made with grooves in such a way that strips of tag board can be easily inserted.

chart. This chart is made of double-thickness paper with slits or grooves into which the lines can be fitted, thus making a chart like the big one. The teacher held up the line "Things We Do in School." "Who can match this and put it in the chart? John, you may." John took the line, held it up to the big chart, and instantly saw that it was the first line (doubtless its length in comparison to the others assisted him in placing it). He put it into the place in the container chart which corresponded to the title in the big chart. Then a child was asked to match and place in the chart the line 'We sing.' When the teacher asked for the line 'We write' the child forgot to match it with the original. "Always match it," he was told. "Yes, so you won't make any mistake," spoke up a child.

Taking sentences from the container chart. "Children, should you like to play a game?" asked the teacher. "When I read a sentence, some child may find it on the container chart and take it to his seat. Who can find 'Things We Do in School'? Match it. Who can find 'We sing'? Who can find 'We write,'? Who can find 'We play'? Who can find 'We read'? Now who has 'Things We Do in School'? Match it, to make sure. Who has 'We sing'? Who has 'We write'? Who has 'We play'? Who has 'We read'?"

From the foregoing description it may be discerned that it takes thought and skillful teaching to get the right kind of chart composition from the children and to have them read it. The sentences in early chart work must not be too long nor too great in number. The material must be got from the children by thought-provoking questions. There must be good enunciation and pronunciation, clear thinking, weighing of value, and discarding of unimportant points. The children thoroughly enjoy reading the charts

over and over. Very often troublesome words on new charts can be found on old ones, and in this way the child gains vocabulary without the old tiresome word drills.

Mechanical make-up of a chart. The paper used for charts is tag board, which comes in large sheets and may be cut or added to as necessity demands. The lines of print should be three inches apart. Care must be taken to allow a space at the top if an illustration is to be used, and a good margin should be allowed. The words should be printed in large print, clearly and without blur, for an untidy, poorly made chart would defeat its purpose. Charts must be neat. The title is placed on a line above the content. Phrases must never be separated nor words divided, for if the child is to have large visual spans he must see phrases as wholes.

Summary of values of chart work. We may sum up the values of chart work as follows:

1. The children feel that reading is an outgrowth and a part of every school activity.
2. Oral expression is stimulated, and the children are led to express their thoughts with a purpose in view.
3. The children take pleasure in reading what they have expressed.
4. The early reading lessons are composed by the children and are based on their own experiences and hence are interesting to them.
5. Charts help to initiate correct reading attitudes — not merely pronouncing words, but getting meaningful content.
6. The chart presents a single objective and focuses the attention of the group on one thing, thus developing attention and concentration. The children learn right habits of reading, from left to right and from the top to the bottom of the page. In chart-reading the teacher can easily see whether or not the child is forming correct eye-habits.

C. Training Pupils to read from Books

When books should be introduced. No child should begin reading in the text until he has a sense of the significance of reading — until he has some idea of how reading functions. Through his contacts with numerous school activities accompanied by reading, his contacts with books on the book table, and his work with charts, the child has made pleasant associations with reading. He sees that it is a natural part of the ordinary school life and social situations; he has grasped the fact that the children in the room and people in general read to find out something and that they refer to books and printed material for information. He has found that even in his schoolroom there are many kinds of books, and that one kind of interesting stories can be found in one book and a different kind in another book. He has acquired the beginning of correct habits in reading chart material. He has gained some ability to concentrate and to think clearly, and in helping to contribute to the chart material he has learned to listen attentively and to compare and judge. He has seen how reading is used in ways most significant to him. If he gives evidence of these abilities he is able to begin reading books. Perhaps he shows that he can begin reading in the book the second month of school or the third month, or if he seems slow in showing interest the teacher may feel that it is best to postpone reading from books until the latter half of the year. In the meantime he will continue to have chart work and the other types of reading activities.

Presenting the books. Presenting the books to the group should come as something pleasurable to which the children have looked forward. It may come as a surprise which the teacher has promised them. Perhaps the

first two or three stories in the book may be taught from charts before the books are used. The fact that these stories are given first on the charts does not mean that interest or enthusiasm will be lost: it means that the children will be delighted to meet old friends in their books, and especially happy that they can read the selections through easily and well. Here, again, we remember that if the child feels he can read in his book easily, he is forming the bonds of pleasure with the act of reading. Nothing helps so much as confidence.

When the teacher gives out the books she should allow time for the children to examine them and to talk about them spontaneously. They may glance through, looking at the pictures and examining the title and the page numbers, and may read through the table of contents with the help of the teacher. She should talk to the children about caring for their books and should allow them to suggest what they may do to take the best care of them; for example, to wash their hands before using the books if their hands are dirty, to turn the pages carefully, never to wet fingers to turn pages, never to mark on the books, and to handle books carefully. The children are commended when they hold their books properly. The teacher should show them how to slip the markers down from sentence to sentence as each sentence is read, so they will always keep the place. After this the first story may be read rapidly so that the children may form habits of coherent, meaningful reading.

Types of reading lessons. *Oral sight-reading.* A variety of procedures is used in introducing children to the early book work. Space does not permit of a description of all these procedures; so only a few suggestive ones are given for the teacher's help. The lesson described below is representative of one type of procedure used in connection with

beginning book-reading. The chief criticism about this type of lesson is that it does not have a purpose from the child's point of view.

1. The teacher tells the story in the exact words of the book, sometimes showing cards with phrases and sentences on them as she tells the story.
2. A review of the story is given, the teacher asking questions which the children answer usually in the words the teacher has used in telling it.
3. The children look at the pictures of the story in the book.
4. The teacher asks for a sentence at a time to be read, sometimes suggesting the reading by her questions.
5. If possible the children read the sentence silently before reading it orally.
6. A phrase drill may be given at a separate period, using quick-exposure cards.
7. The story is reviewed, larger units being read at a time.
8. Silent reading for pleasure.

Oral sight-reading with stronger motives for reading. We can see that the following lesson affords greater stimulation for interest.

1. The teacher asks questions to get the chidren interested in the story. She may allow them to discuss informally for a few minutes their experiences related to the main theme and story which she has introduced. She then asks the class to find out some significant point in reading.
2. The children look at the pictures and discuss incidents shown by them.
3. The teacher asks questions about the pictures.
4. The children answer by reading orally.
5. Oral reading of the whole story.

Silent reading followed by oral. The lesson here described gives a strong motive for silent reading.

1. The teacher gives a brief introduction of the story.
2. The teacher gives concise questions to be answered by reading

a sentence or sentences. The length of the portion to be read by individual children is gradually increased.

3. The teacher helps the child by giving words he does not know, or may anticipate by printed phrase-cards.

4. The teacher continues by giving a general idea of each portion to be read, as, "What did Bushy Tail do next? Read to find out."

5. Oral reading of each lesson. To vary the procedure, sometimes a child may be asked to tell the answer instead of reading it.

Another type of silent reading followed by oral. This is still another procedure, but one which is more informal than the lessons described above.

1. The children look at the story to be read, observing the pictures and commenting on them.

2. "Who will read the title?"

3. The children are directed to read the first two lines silently, the teacher helping individual children with difficulties.

4. "Read silently what the pig says. You'll have to read five lines." The teacher comments on lip-movement, commending those who read without moving the lips.

5. Read the story orally.

6. If the story is not finished, the children may finish it in the silent-reading period.

Sample lesson showing silent reading followed by oral. This is a lesson in a first grade, showing how the teacher sustains the interest by thought questions and anticipation of difficulties.

"This is a new story. It is called 'The Walk.' I'll tell you the names of the characters in the story. There are only four. It tells about the first three on the first page." Several children started guessing the characters before the teacher could tell the names of the characters. They were White Goose, Fluffy Duck, Old Mother Hen, and Wise Owl. The teacher then showed the children the chart she had made containing the names of the animals. "I put the Wise Owl last because he comes last in the story," she said. The children had repeated the names several times without the

chart and now gave them as the teacher pointed to them at random on the chart. She said, "As soon as you get your books you can find in the first sentence about the first three characters, because it tells about them there."

The children started to read silently right away. When a word was not known, the child asked the teacher. As each child was ready to read he stood up to show the class that he had read the sentence to himself and was ready to read it to them. "Mary, read the first sentence that tells about the characters." Mary read. "Good," commented the teacher. "The next sentence tells something more. Read silently." A pause. "Nancy, will you read what they did?" Nancy read. "Good! Now it's going to tell something else they did. Helen, you read what they did." Helen read. "The story says they walked on and on and on. I suppose they were going to stop. Turn the page." A child spoke up, "There is no picture on this page."

In continuing to read the story one child failed to know the name of one of the characters, but the teacher said, "I am not going to tell you, because we went through those in the beginning." At last the child remembered and read. "Who is talking in the next part? Yes, it is White Goose talking. Peter, will you read?" Peter read poorly. "That isn't your best reading. Read right off." Peter read again, this time much better.

"Find out if they went home. Perhaps you can read more than one line. Let us ask Edith." The teacher watched the children to see which ones were not getting the story.

"Is one character still talking?" The children looked to see and found that the same character was still talking. "Bob, read two sentences." Bob read. "Good! good for you, Bob. What did Fluffy Duck say? Where are we, James? Frances, read this part." Frances read. "Now read what White Goose says." One child said: "I think it says the same thing. I can tell by the words."

"The Mother Hen says something different." The word "again" seemed to be new, so the teacher asked each child to put his finger on "again." To one child she said: "You found it, but it isn't the word in the line we are reading. I think you'll know 'again' when you see it again." The children were attracted by the sentence and had a good time repeating it several times.

The teacher retold the story as far as they had read. "Tomorrow we shall read to find out some more. I won't tell you." One child said, "I'll read it myself when we read books at our seats."

Reading work-type material. This type of reading should be varied with the story type and should play an important part in the silent-reading program.

1. The children read a page which has a list of things to do.
2. The teacher says, "Read the things to do and then we will take turns at doing them."
3. The children read each direction silently.
4. The teacher calls on one child at a time to carry out the directions.

Reading silently stories read before in other books. Frequently the versions of stories differ in different books. After one version is read the teacher may pass out other books, and the children are interested to meet an old friend in slightly different form.

D. Informal Reading Tests

These tests are described in Chapter XIII, "Informal Reading Tests."

E. Phonetic Analysis and Word Recognition

For a full treatment of this topic read Chapter X, "Phonetic Analysis and Word Recognition."

F. Seat Work related to Reading

Suggestions relating to seat work are found in Chapter XII, "Seat Work related to Reading."

G. Independent and Directed Reading for Pleasure[1]

A book table for generating pleasant associations with books. From the first day of the school year the teacher wishes the children to make pleasant associations with different kinds of books, so she places upon a low table in a convenient part of the room many attractive books, some with large colored pictures, some with smaller colored pictures, some poetry and some prose. She tries to cover a broad range of interests in her selection, for she knows that all children are not attracted by the same kind of content. A nature book will appeal to one child but not to another, and a book of engines will be more apt to attract boys than girls. She knows that books on the reading table must, generally speaking, be different from the primers and readers which are read in class periods. There should be books so simple that the children can pick them up during their leisure moments, glance through them, looking at the pictures, and tell fairly well what happens page by page.

There should be a period for the children to discuss what they have read on the table. A group of first-grade children had just finished a period of silent reading in which they could choose any book on the table to read. They took seats on the floor in front of the teacher, who allowed them to tell what they had read. One little child had been reading "Little Black Sambo." "Wasn't it nice that you could pick up that book and read it right off? Tell us what little Black Sambo wore." This from the teacher, and the child described little Black Sambo's wonderful wardrobe. Another child had a book of poems, some of which she wished to read to the class. "You

[1] For further discussion and book lists see Chapter XI, "General Assimilative and Recreational Reading."

must read loudly," advised the teacher, "because you read so much to yourself that when you read to us, perhaps it is hard for us to hear you. What did the little boy like to do before he went to bed?" The child told and then read the poem. "Who wrote the poem?" asked the teacher. "Robert Louis Stevenson," replied the child. Another child had brought Aldis's "Anything and Everything" and read "Clouds" from it. Another read a portion of "Jack the Giant Killer."

The children should be encouraged to bring books to school to show to the other children. The teacher may print on a chart the names of those who bring books to school; later they may write their own names on a chart.

Children who read more rapidly silently than orally excused from regular reading period. Children who reach maturity as far as first-grade reading is concerned might select a book from the reading table and go to their seats and read silently during the regular reading period. They are too advanced to be in the class with the others; it is not fair to keep them in the group, nor would it be fair to the group to have them in it.

General procedure in reading for pleasure. In general we may sum up as follows the things the first-grade teacher must do to carry on directed and independent reading for pleasure in the first grade:

1. See that a book table is in the room, and place on it books that the children will enjoy looking at.
2. Encourage the children to bring books from home to show to the class.
3. Give five or ten minutes each day for the children to choose any book from the table and look at it.
4. If possible allow time each day for the children to tell what they have looked at or read on the book table or at home. Allow those who wish to do so to read portions to the class.

Section III. Amount of Time devoted to Reading

We see how reading is intimately related to every activity in the classroom. Since this is true, the old practice of teaching reading orally in the reading periods does not work now. There should be time for daily practice in reading, but less time than formerly, and surely less time should be devoted to this kind of reading than to the other types discussed. It is difficult to suggest a time allotment which will fit all schools, but in general eighty minutes a day seems a reasonable amount.[1]

Section IV. Desirable Levels of Achievement

A. Materials

It is recommended that first-grade pupils should read at least twelve books under supervision; that is, they should read them and be checked as to comprehension.[2] At least ten books should be read independently at home or in the reading hour at school. The children will no doubt read many more if the teacher follows the procedure recommended for encouraging independent reading.

B. Habits and Skills

The following characteristics distinguish the pupil who has satisfactorily completed the requirements of the initial period.[3]

1. Becomes completely absorbed in the content of interesting selections when reading independently.
2. Reads silently with few or no lip-movements.

[1] Report of the National Committee on Reading, Twenty-fourth Yearbook of the National Society for the Study of Education, p. 42.
[2] Ibid. p. 43. [3] Ibid. p. 44.

3. Asks questions about and discusses intelligently the content of what is read.

4. Reads aloud clearly, naturally, and in thought units rather than by individual words.

5. Handles books with care, opens and turns pages properly, knows the order of paging, and is able to find readily what he is looking for.

C. Testing Results

The accomplishments and progress of first-grade pupils may be determined from time to time through the use of the following standardized reading tests:[1]

Accomplishment	Test
1. Recognizing the meanings of words seen	Detroit Test in Word Recognition
2. Interpreting simple sentences and paragraphs	Haggerty Reading Examination, Sigma I
3. General accomplishment in speed and accuracy of oral reading	Standardized Oral-Reading Paragraphs
4. Rate and accuracy of oral reading	Gray Oral-Reading Tests

Each of these tests is fully described in Chapter X. The standard scores which accompany these tests are based on the results of instruction as it has been given in the past. Evidence has been secured which shows clearly that higher standards of achievement may reasonably be expected of first-grade pupils. For example, it was found in a recent unpublished study in which three tests were used that pupils who revealed at the end of the first grade the five qualities described above made, on the average, distinctly superior scores. The standard scores as well as the average scores of these pupils, which

[1] Report of the National Committee on Reading, Twenty-fourth Yearbook of the National Society for the Study of Education, p. 44.

are suggested as desirable standards, are presented here for purposes of comparison.

Haggerty Reading Examination, Sigma I, Test I
Standard score, 4
Desirable standard, 5
Standardized Oral-Reading Paragraphs
Standard score, 31
Desirable score, 40

The scores which have been described present desirable levels of achievement at the end of the initial period. They may be attained by a large proportion of first-grade pupils at the end of the year, they may be easily surpassed by many pupils who learn to read easily, and they may not be attained by many pupils until well into the second grade. As rapidly as pupils reach the suggested standards, provision should be made for the broader program of reading activities recommended in the next section for second-grade and third-grade pupils.

Section V. Summary

We have discussed in this chapter the big aim concerned in the teaching of reading in the first grade, which is to stimulate in the child a desire to read. We found that there are also several definite objectives for this grade, and certain activities to be employed in carrying out these objectives, such as the use of the bulletin board, pictures, chart work, and the book table, all of which lead up to reading from books. Other topics fully explained and described in the chapter are desirable lessons in book reading, time devoted to reading, and desirable levels of achievement.

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CHAPTER IX

READING IN THE SECOND AND THIRD GRADES

Outline

I. The second and third grades a period of rapid growth in fundamental attitudes, habits, and skills
II. Time allotment
III. Relation between silent and oral reading
IV. Providing for individual differences
V. Reading concerned with a large number of specific abilities
  A. Specific aims
VI. Securing rapid growth in habits of intelligent interpretation
  A. Intelligent interpretation improved through careful preparation of lesson
  B. Procedure with a slow group
  C. Illustrations of objectives and checks in silent reading
  D. Sample lessons to show different kinds of reading in the second and third grades
VII. Increasing the rate and accuracy of oral reading and silent reading
  A. Increase in rate and accuracy
VIII. Providing for the development of desirable habits of interpretation in oral reading and of appropriate standards in specific oral-reading situations
  A. Conditions favoring good oral reading
  B. Silent reading a preparation for oral reading
  C. An interested audience
  D. Criticism by the audience
  E. Types of oral-reading situations
IX. Gaining a deep and permanent interest and enjoyment which will carry through life
  A. General assimilative and recreational reading
  B. Access to library of about fifty books
  C. Interesting posters
  D. Children make their own bookshelves
  E. Types of reading provided for in assimilative and recreational reading
  F. Procedure with a slow second-grade group in general assimilative and recreational reading

G. Means of determining results
H. Other measures of results
I. A library project worked out in a second-grade room
J. Results of the project
K. Desirable levels of achievement
X. Summary

Section I. The Second and Third Grades a Period of Rapid Growth in Fundamental Attitudes, Habits, and Skills

In Chapter VIII we dealt with the various types of reading activities carried on in the first grade. The stage of reading which follows is the period of rapid growth in fundamental attitudes, habits, and skills. Buswell says that the child proceeds a long distance toward maturity in the span of recognition before he enters the fifth grade.[1] "The distinguishing characteristic of this period is rapid development of the attitudes, habits, and skills on which intelligent interpretation, fluent, accurate oral reading, and rapid silent reading depend."[2] A large proportion of the pupils fulfill all requirements of this period during the second and third grades.[3]

Section II. Time Allotment

It is recommended that about seventy minutes be given each day for reading in the second grade and sixty minutes in the third grade, these amounts varying, of course, with the size of the school and the ability of the group.[4] The recommendation is based on the following investigations: (1) An analysis of the daily programs given in

[1] G. T. Buswell, Fundamental Reading Habits: a Study of their Development, p. 26.
[2] Twenty-fourth Yearbook of the National Society for the Study of Education, Part I, p. 25.
[3] Ibid. p. 45.
[4] Ibid. p. 47.

twenty-six courses of study revealed that the average number of minutes per day recommended for reading in rural elementary schools was seventy-two for the second grade and sixty-three for the third grade. (2) A study of the time schedules of thirty-one first-class schools in North Dakota showed that the median number of minutes per day for reading was fifty for both the second grade and the third. (3) In a study of the amount of time given to reading in forty-nine cities it was found that the average was eighty-one minutes per day for the second grade and sixty-six minutes for the third.

Section III. Relation between Silent and Oral Reading

About 75 per cent of the reading done in the second grade should be silent, and in the third grade as much as from 80 to 85 per cent of the time should be devoted to silent reading. The reasons for this apportionment are as follows:

1. Ninety per cent of the reading we do during our lives is silent.
2. Oral reading, when properly done, is more difficult, and therefore the simpler process should come first.
3. Oral reading hinders the development of good silent-reading habits and tends to develop word-calling instead of thoughtful interpretation.

Section IV. Providing for Individual Differences

A teacher in the second or third grade must take means to determine the varying abilities of her pupils so that she can divide them into about three groups according to their ability to read. She must then provide materials and methods suited to the stage of development of each

group. To ascertain the abilities of the group she will use the results of standardized intelligence tests, and will determine individual reading scores by a standardized reading test (for further discussion see Chapter XIV). The following tests are some which may be used in these grades:

The Burgess Scale for Measuring Silent-Reading Ability
Standardized Oral-Reading Paragraphs. (This test, by Gray, is especially good for diagnosis; if the pupil is checked up on comprehension after the reading of each paragraph, the diagnosis is more complete.)
The Haggerty Reading Examination, Sigma I
The Monroe Silent-Reading Test, Form I
The Stanford Achievement Test in Reading, Grades 2–8
The Thorndike-McCall Reading Scale, Grades 3–9

Section V. Reading concerned with a Large Number of Specific Abilities

Formerly it was assumed that reading was a rather general ability, but it is now recognized that it consists of a large number of specific abilities which are acquired more or less separately. Since children and adults read for a wide variety of purposes, each of these purposes is characterized by appropriate attitudes, habits, and skills. It is apparent that instruction and practice in reading in a general way — mere reading — cannot guarantee the development of all the important types of reading ability. Training in reading must be many-sided: many types of reactions must be acquired. Although transfer from one type of reading to others is genuine and usually positive, it is so small that it cannot be depended upon to develop desired abilities. These must be developed specifically.

Any program of instruction in reading should take into

consideration the different reading abilities and objectives; therefore in this chapter we shall state the objectives of such instruction in the first and second grades and then proceed with the description of various activities that may be carried on to attain these objectives.

A. *Specific Aims*

The specific objectives of instruction for pupils in the second and third grades are these:

1. To secure rapid growth in habits of intelligent interpretation. This includes steady progress in reading different types of material for various purposes:

a. Ability to find answers to questions.
b. Ability to comprehend facts.
c. Ability to follow directions.
d. Ability to organize ideas.
e. Ability to read and draw conclusions; to do independent thinking.
f. Ability to read and reproduce.

2. To increase the rate and accuracy of oral reading and silent reading. This includes rapid progress in habits of accurate recognition, a wide span of recognition, a wide eye-voice span, and the rhythmical progress of perception along the lines.

3. To provide for the development of desirable habits of interpretation inoral reading and of appropriate standards in specific oral-reading situations.

4. To gain a deep and permanent interest in and enjoyment of reading which will carry through life.

a. By providing a rich variety of reading experience based on the world's greatest stories for children and on informational material relating to numerous topics studied in content subjects.
b. By stimulating keen interest in reading wholesome books and selections for pleasure and information; establishing the habit of reading independently.
c. By continuing training in the skillful use of books to familiarize pupils with the privileges and opportunities of libraries and to teach them to draw out and return books.

Section VI. Securing Rapid Growth in Habits of Intelligent Interpretation

Intelligent interpretation improved through careful preparation of lesson. One of the most important abilities to be emphasized in the second grade is intelligent interpretation, or comprehension. Since the teacher's problem is to develop the right habits in children, she must have a scientific knowledge of the reading process and must endeavor to apply this knowledge in each lesson in reading, she must keep in mind the ability of her group and select material suitable for its needs, and she must prepare the lesson carefully so that she will make the most effective use of her materials. If she wishes the children to be interested in the selection, she must be familiar with it herself before she undertakes to teach it. The steps of procedure in teaching second and third grade reading may be outlined, in general, as follows:

1. *Introduction of the lesson.* To arouse interest she must give an introduction that will connect the main thought of the new material with some experience or thoughts of the children. She may use pictures, real objects, or conversation to accomplish this. Sometimes she arouses interest by telling the beginning of the story; at other times by introducing and describing the characters in such a way as to set up a problem or thought which the children must read silently to complete. Frequently the observation and discussion of pictures in the story serve to direct the pupils' attention to questions concerning the story.

2. *Purpose in reading.* Perhaps the thought question raised by the teacher in the introduction of the selection is that of the purpose in reading. The material itself largely determines the purpose that will be aimed at in the reading. Some material is better suited for comprehension of facts, some for the organization of ideas, some for following directions, and another kind lends itself to reproduction in drawing and dramatization. Sometimes the teacher sets up the motive through her introduction; some-

times she stimulates the children to set up a purpose (for a fuller discussion of this see Chapter IV).

3. *Reading the selection silently.* The final goal is effective rapid silent reading. The fundamental purpose of reading is the acquisition of meanings or experiences from printed materials; the ability to acquire these comes by the practice of reading. The teacher may go about the group and give individual help in words that cause difficulty. She will show the pupils how to get unfamiliar and difficult words through the application of phonics. During this silent reading the pupils should be held responsible for the application of their knowledge of phonics to the words that cause difficulty. They may get the word through the content, or recognition may come by recalling it in the book or in a familiar sentence on a chart. During this period the teacher may give individual reminders about avoiding lip-movements, and she may assist the pupils in the proper use of the book.

4. *Discussion and check-up of silent reading.* This step in the lesson is one of the most important phases of silent reading. As soon as the majority of the class have finished reading, the teacher should begin to make a check in the light of the purpose of the selection. If the selection is one that permits of class discussion, the children will get a good deal of pleasure from an informal conversation about the material. Comprehension may be checked by numerous forms of responses after the discussion. The checks may consist of

a. The thought question, which will involve a grasp of the main idea in the selection.
b. Questions which have to do with the outstanding thoughts and the more important details.
c. A question or questions which cause the class to draw conclusions and to do independent thinking.
d. A question or questions which cause the class to organize ideas.
e. Application of any of the informal tests to the selection.

5. *Mastery of difficult words.* Authorities do not agree on the time for giving drill on new or unfamiliar words in a selection. Some contend that difficult words should be presented before the children read a selection silently, so that word difficulties will not interfere with interest, comprehension, eye-movements, and speed;

others feel that a better plan for the teacher to follow in most cases is to place upon the blackboard or print upon strips of tag board the words and phrases most likely to cause difficulty and, at the close of the silent reading or at a special drill period later in the day, to drill upon these difficult elements. The advantage in carrying out the latter plan is that the children are more likely to think of the words in connection with the thought or sentence to which they belong rather than to think of them as isolated words. More time and emphasis should be given to phrase drills than to word drills unless the word is one that can be worked out by applying phonetic principles. The children may need help in finding the familiar phonetic elements.

6. *Oral interpretation.* After the silent reading of the selection, the discussion, the mastery of difficulties, and the comprehension checks, the pupils may read the selection orally. The method of conducting this oral lesson depends to some extent upon the character of the story. If it is a story in which various animals are featured, different children may take the parts of different animals and read their parts aloud. If it is a good story to dramatize, the class may work out a dramatization in which as many as possible of the class take part. The teacher may ask such questions on the selection as require oral reading for their answers or explanation. She must not feel, however, that every selection requires oral reading after the silent reading. The selection may be of the work type, and if the comprehension is checked thoroughly there will be no necessity to read it orally. The children's enthusiasm may be a sufficient guide in this matter: if they express a wish to read the story orally, they should by all means be allowed to do so. Sometimes one child may be selected to read the whole story to the class or to another class. Again the children may be given permission to take home their books and read the selections to their parents.

7. *Silent-reading seat-work activities or follow-up work.* These activities are reactions which necessitate a real grasp of the content of the selection, and which often make provision for reading abilities not included in the recitation period. Many such activities will be a further checking of comprehension, but in a different period and using a different purpose, and will for the most part

consist of silent-reading activities. The material suitable for oral reading may be read aloud by the group in another period, but this re-reading will be in response to some need or purpose. Whatever the type of follow-up work, it should be related to, and based upon, the selection read in the regular recitation period. The following are types of such seat-work activities:

a. Cutting, illustrating, or modeling the main events of the story, its characters, or actions of the characters.
b. Finding in the selection words that have the same meaning.
c. Writing on the blackboard directions based on the selection for the children to carry out independently.
d. Children formulate thought questions on the material to ask one another in a socialized recitation.

See also Chapter III and Chapter XII.

Procedure with a slow group. Easy reading materials should be selected for a slow group. If it is a second grade a first reader should be used during the first month; if it is a third grade a second reader should be used before the third reader is attempted. Children form habits of fluent reading more quickly if easy reading materials are used. The procedure for a slow group may be modified as follows:

1. The discussion of pictures in the story will have more to do in the introduction of the story. The pictures present questions and help to arouse interest in the story.

2. If the story is not too long the children read it through silently to get the whole selection; if it seems too long they read a unit at a time, asking for help on any words that cause difficulty. They read the selection silently to answer questions.

3. After the children finish the story they talk it over and answer orally the questions that were raised by the pictures and discussion.

4. The teacher may ask several questions that will require the children to do independent thinking on the material read. They may put away their books, get paper and pencil, and answer questions on the content which have been written on the blackboard. They go to the teacher for help in writing any words they do not know. Papers are then checked and handed back, and the

children derive a great deal of enjoyment out of the discussions that arise. There are questions which cannot be settled, so oral reading of the story follows.

5. Phrases and sentences either written on the blackboard or printed on tag board are used for drill in a separate period.

6. The material is then read orally to clear up any misconceptions or parts not fully understood.

Illustrations of objectives and checks in silent reading. 1. *Reading to answer factual questions.* The following paragraphs show two ways of reading to answer factual questions.[1]

a. To answer by writing Yes or No. Read the story of Peter Rabbit[2] silently. As soon as you finish the story the questions will be written on the blackboard. Close your books and answer each question by Yes or No.

1. Were there just three rabbits?
2. Did they live near a small tree?
3. Could they go to the fields to play?
4. Did the mother go to the garden?
5. Was Peter a good bunny?
6. Was Mr. McGregor planting onions?
7. Did Peter lose both shoes among the potatoes?
8. Was Peter's jacket green?
9. Was it Mr. McGregor who sneezed?
10. Was it the mouse who watched the goldfish?
11. Was it Mr. McGregor who made the scarecrow?

b. To answer by writing out the answers. Read the story "The Golden Blackbird"[3] silently. The questions will be written on the blackboard. As soon as you have finished reading the story, close your books and write the answers to the questions.

1. What was the matter with the king?
2. What did the wise man say would cure him?
3. Where could they find it?

[1] Lesson taught by Miss Nina Jacob, teacher in the University of Chicago Elementary School.

[2] Beatrix Potter, The Tale of Peter Rabbit. Frederick Warne & Co., Ltd., New York.

[3] Winston Second Reader, pp. 103–119. John C. Winston Co., Philadelphia.

4. Which son started to get it first?
5. What happened to him?
6. What happened to the second son?
7. How did the White Rabbit help him?
8. Describe the Porcelain Maiden.
9. How did she travel?
10. Where did she and the youngest son find the brothers?
11. How did Princet get to see the king?
12. What happened to the brothers?
13. What happened to Princet?

Here are the responses:

1. The king was ill.
2. The wise men said that nothing but the Golden Blackbird would make him well.
3. They would find the Golden Blackbird in the Land-of-Nobody-Knows-Where.
4. The oldest prince started first.
5. He came to an inn, and the landlord came out to ask him to rest.
6. The second brother came to the inn, and his brother came out and asked him to stop and rest.
7. The White Rabbit knew the way to the Land-of-Nobody-Knows-Where.
8. The Porcelain Maiden was prettier than anyone he had ever seen.
9. She traveled on a donkey.
10. Princet found his brothers at the inn.
11. He exchanged clothes with a poor boy.
12. The brothers were put in prison.
13. Princet asked the king to let them go free.

2. *Testing comprehension by following directions in drawing.* The following shows how one selection may be used in three different ways for three groups of varying abilities:

Read "The Sun and the Wind."

(1) Those who complete the selection first will have time to make a manila-paper booklet in which they will draw all the various things the wind does.

(2) Those who do not read as rapidly may draw pictures of several of the wind's activities.

(3) Those who read very slowly will have opportunity to make only one drawing — a picture of what the wind does to a sailboat or a portrayal of what the wind does to the trees.

3. *Reading to learn facts.* The following lesson,[1] entitled "Picking Apples," to be taught in a third grade, illustrates several specific abilities.

a. Objectives

(1) Ability to comprehend facts
(2) Ability to search for pertinent facts
(3) Ability to organize ideas

b. Introduction: setting the problem. Before you can eat an apple three things have to be done. As you read this story you will find out what these three things are and what fun the boys in the country have doing them.

c. Discussion and testing.

SILENT-READING COMPREHENSION TEST

(Score equals the number right)

1. Uncle Jim picked the apples in summer.	*Yes*
2. Jimmie and Donald were careful.	*Yes*
3. The trees were in the orchard.	*Yes*
4. Uncle Jim threw the apples from the tree to the truck.	*No*
5. Little Jimmie had a basket.	*Yes*
6. The boys gathered apples from the trees.	*No*
7. The apples were put in a bin.	*Yes*
8. The nicest apples were kept for cider.	*No*
9. The apples that had specks were put in a pile on the floor.	*Yes*
10. Cider is made from apple butter.	*No*
11. The nicest apples were given to the cows and horses.	*No*
12. The boys were sorry to go to town.	*No*

SILENT-READING SEAT-WORK TEST

(Score equals the number right)

Matching Game. The following directions are written on the blackboard:

Use your books for this game. Match the following details with the main ideas, or write each detail sentence under the appropriate main idea.

[1] From the "Third Reader Manual for the Child-Story Readers," pp. 46–48, by Eleanor M. Johnson. Lyons and Carnahan, Chicago, 1928.

Main Ideas	Details
I. The apples were picked.	A. They looked over the apples one by one.
II. The apples were sorted.	B. He picked the apples carefully.
III. Some of the apples were taken to the city.	C. Little Jimmie and Donald each took a basket.
	D. Little Jimmie had started the car.
	E. The nicest apples they put in barrels.
	F. Uncle Jim took a basket and climbed up into the tree.
	G. So they went off with the barrels of nicest, biggest apples.
	H. They made another pile of apples that had specks in them.
	I. They emptied their baskets carefully into the truck.
	J. With a shout both boys climbed into the truck.

The correct answers read as follows:

I. *B, C, F, I* II. *A, E, H* III. *D, G, J*

Sample lessons to show different kinds of reading in the second and third grades. 1. *Silent and oral reading of easy material.* The book used is "In Animal Land."[1] The reading period opens with a brief review of the previous lesson, the teacher asking such questions as "What were the animals going to do to welcome Playmate back to the forest with the coming of spring?" Answer: "Give a picnic." "Were the animals each going to bring something to the picnic?" Answer: "Yes, the rabbit brought a cabbage, and the squirrel some nuts."

The new lesson begins with the teacher's telling the children to turn to a given page. She asks the question "When the animals were seated about the table what did Playmate say to them?" The children read till they find the answer, asking about words when necessary; they

[1] M. G. La Rue, In Animal Land. The Macmillan Company, New York.

then stand and whisper the answer to the teacher; they are not permitted to stand until they have found the correct answer. Then one child is chosen to tell the answer to the others.

Children are commended when they hold their books properly, when they do not read beyond the answer, and

SILENT READING ABOUT THE VIKINGS

This is in connection with the study of the Vikings in the third grade. (Courtesy of the University of Chicago Elementary School)

when they are prompt and give clear, correct answers. The questions are varied in difficulty, a simple question generally alternating with a more difficult one, but always leading on to more complicated and difficult questions. The wording of the questions is varied, too; for example, "What does the bear do when he eats?" "How many different kinds of foods can you count that were spread on the picnic tables?" An effort is made to keep the lesson going at a rapid pace so that there will be no letting down

of the interest. At the close of the period the children whisper the answer to a question, and as they give the correct answer they are excused.

2. *Silent reading of new and more difficult material, with class discussion to answer oral questions, followed by oral reading.* The following lesson was taught by a teacher in the second grade:[1]

TEACHER. I have the best kind of surprise for you today; the girls will like it, but the boys will like it especially. How many of you have ever heard of Robinson Crusoe? [Several had. One child said that they had the book at home, "but it isn't the child's book."]

TEACHER. Who can tell something about Robinson Crusoe?

CHILDREN. He crossed the channel.

He went to Brazil.

He was captured by the vikings and kept on an island.

He traveled by water.

TEACHER. Are you interested in people who travel by water?

A CHILD. Yes.

TEACHER. What do we call those people who travel a great deal by water?

A CHILD. Sailors.

TEACHER. Are you interested in finding out more about Robinson Crusoe?

A CHILD. I can tell more.

TEACHER. We know just enough to make us want to read about him. How should you like to read a whole book about him? [The children were delighted.]

TEACHER. That's just what we are going to do. Mary, will you pass the books? I knew you would like to read a whole book about the same person. Look through your books now at the pictures, so that when we start reading we won't have to spend our time looking at them. [As they looked through the book the children made comments; as, "I'm going to be interested in this." "That reminds me of Peter Pan." "Look, what is he building?"]

[1] Miss Hazel Menier, second-grade teacher in the University of Chicago Elementary School.

TEACHER. We shall have to find out by reading.

A CHILD. [Looking at a picture of Defoe] Is that a wig?

The teacher explained that this was a picture of the man who wrote the story.

The lesson proper:

TEACHER. Now when you are all as ready as George is, turn to page 11 and we will begin. Sarah said that this was a story about Robinson Crusoe's life. Do you suppose that it tells anything about his childhood? How many boys are interested in boats? How about the girls?

A CHILD. I went from Boston to Belfast on a boat.

TEACHER. This picture at the top is of Robinson Crusoe. Look at it carefully so that you will never have to ask what it is. We are going to read just the first chapter today, only two pages. Find out why he liked boats when he was a little boy. We want to find out what he liked when he was a little boy so that we can understand why he did what he did.

The children read silently for about ten minutes. Most of them asked for help with words.

The teacher explained that Robinson Crusoe lived in England; that York did not mean "New York." When they had finished the two pages they were allowed to get books from the reading table. When most of them had finished, the teacher asked them to put their other books under their chairs.

TEACHER. Did you like it? Was it hard to read? Tell what little Robinson Crusoe liked to do best of all.

A CHILD. Watch ships.

TEACHER. Where did he go?

A CHILD. To the dock.

TEACHER. What is a dock?

A CHILD. Where the ships load and unload. I was on one on Lake Superior.

TEACHER. What was so interesting about the boats that he saw?

A CHILD. They were sailboats.

They were pretty.

There were many different kinds.

The white masts.

TEACHER. Were they big boats?

A CHILD. Yes, and they had been to many places.

TEACHER. How did Robinson Crusoe's father feel about it?

A CHILD. He did not like it.

TEACHER. What did he want him to do?

A CHILD. He wanted him to stay at home.

TEACHER. What did he want him to do?

A CHILD. Work in a shop.

TEACHER. Yes, he wanted him to do something, but Robinson insisted upon being a sailor. How did his mother feel about it?

A CHILD. She told him that storms at sea wrecked boats, and the fishes ate the people.

TEACHER. So it was hard for him to make up his mind. He did not want to disobey his father and mother, but he did want to be a sailor. What did he do?

A CHILD. He went to sea.

TEACHER. How old was he?

A CHILD. Eighteen years old.

TEACHER. How many know someone who is eighteen years old? [Several did.]

TEACHER. Many of the boys in high school are about eighteen. So when Robinson was about as large as those boys he went to sea. Shall we read and find out now just exactly how his father and mother did feel? Turn to page 11. What is the name of the chapter? Did you notice anything unusual about this?

A CHILD. It's just as if Robinson Crusoe was talking.

TEACHER. Yes. Do you think that makes it more interesting? Carol, read the first paragraph orally.

Will you read about the stream again, Carol?

It is interesting to think about all the things and places the sailor saw. What did he like to do, Mary? [Mary had to be prompted several times.]

TEACHER. Now will you read about his father, Jane? [Jane read.]

How did his mother feel, George? [George read.] No, he didn't think that he meant it, did he? Now he is off to sea.

A CHILD. My first voyage.

Section VII. Increasing the Rate and Accuracy of Oral Reading and Silent Reading

Increase in rate and accuracy. The increase in rate and accuracy includes progress in habits of accurate recognition, a wide span of recognition, a wide eye-voice span, and the rhythmical progress of perception along the lines. The abilities in this objective are attained through

1. The lessons in second-grade and third-grade reading described on pages 196–200 of this chapter.
2. The informal reading tests and exercises described in Chapter XIII, "Informal Reading Tests."
3. The suggestions for remedial work in Chapter XV aid in increasing the rate and accuracy of oral and silent reading.
4. The suggestions in Chapter X, "Phonetic Analysis and Word-Recognition," aid the teacher in formulating procedures to accomplish the objective stated.
5. Chapter XI, "General Assimilative and Recreational Reading," offers further suggestions on this objective.

Section VIII. Providing for the Development of Desirable Habits of Interpretation in Oral Reading and of Appropriate Standards in Specific Oral-Reading Situations

Conditions favoring good oral reading. The teacher's problem is to aid in selecting the right kind of material for oral reading. It must be a selection that is interesting to the audience, and it should be within the ability of the reader, for discouragement comes with halting and stumbling over words. One child had encountered difficulties in attempting to read to the group material that was beyond her. The teacher helped her to select something easier, and the child exclaimed joyfully, "It's such fun to read stories that you can read."

Silent reading a preparation for oral reading. The children should first read silently for comprehension. There may be certain types of very easy material that can be read orally at sight, but a higher standard of oral reading is maintained only when there is some preparation beforehand, the amount depending on the difficulty of the material. Not many adults can read easily and fluently aloud to an audience without reading the material to themselves first, and, indeed, in asking children in the second and third grades to read without preparation we are asking a great deal, especially when they are at this time forming the habits of accuracy and fluency. First and foremost the child must have a fair comprehension of what he is to read orally if he is to read in an interesting manner. There was a time when the teacher said: "Let your voice fall when you come to a period." "Raise your voice for a question mark." "Pause long enough after a comma to count one, and long enough after a period to count two." A little boy was reading orally to his teacher and came to the sentence "Where are you going?" He read it in an expressionless voice. His teacher remonstrated, asking him to raise his voice, but with no success. Finally, in exasperation, she said to him: "Don't you see that little mark at the end of the sentence? Now read, and watch that mark." The child then read, "Where are you going, little buttonhook?" The children who read poorly should discuss beforehand the meaning of the selection they are to read orally, they should ask about the pronunciation and meaning of any words they are in doubt about, and before the final reading it is well for them to read the selection aloud for another's criticism. Teachers with large groups may not find it possible to carry out all these suggestions, but the one that cannot be dispensed with is reading silently for comprehension before reading orally.

An interested audience. Children should enjoy reading to their friends. The reading-aloud period should be one that is looked forward to by the children. To be able to enjoy reading aloud to others, one must meet high standards, which may be as follows:

To enjoy the selection.
To know every word.
To read with a clear, pleasing voice.
To read smoothly.
To stand correctly.

Mary was discouraged with her reading. The other children read interesting stories to the group, and she felt that she would like to be able to read to the group too. However, when she got up to read she became embarrassed and forgot the words. She was very unhappy, so the teacher decided that since Mary was very interested in dogs, she would help her to find a selection about dogs. Book One of "The Learn to Study Readers"[1] contains some interesting material on the care of dogs which the teacher suggested that Mary prepare to read to the class. She took the book home for several nights, and then read to the class with very little help on the words. She was so interested in giving the class information on how to take good care of their dogs that she forgot herself entirely. The children asked questions which she enjoyed answering. The class thanked her when she had finished, and this helped to give her more self-confidence, for she felt that she had really given them something. Her mother reported that she had an entirely different attitude toward reading aloud and, in preparing a selection, always looked for material that would interest the children and then prepared it at home to read to them. In so doing she forgot

[1] Ernest Horn and Grace Shields, The Learn to Study Readers, Book One, pp. 16–25. Ginn and Company, Boston, 1924.

all about being self-conscious. It adds much to the enjoyment of the period devoted to oral reading if the audience is seated comfortably with no open books or materials. If they know that there will be an opportunity for asking questions about the material read, there will be more real attention and interest.

Criticism by the audience. Kindly, constructive criticism by the group tends materially to improve the quality of oral reading. Criticism of all the oral reading done by the children is unnecessary, but it should take place often enough to make them keep in mind certain standards and to help those who really need group criticism. The teacher is able to check unfair and unkind criticism, to emphasize the points that are true, and to stress the significant points. In the beginning the criticism is based upon the interesting way in which the material was read. Such comments as these may indicate the reaction of the group: "She made me know that it was the milkman talking." "I liked the way she read about the picnic at the beach." Later the children may speak of the voice, the posture, and the smooth reading, and, as has been explained, may make comments on the material selected.

Types of oral-reading situations. *Reading to entertain in the period for reading aloud.*[1] Children enjoy this period, and it has its value in stimulating children to read further.

1. *Reading to answer questions.* These questions should call for the pictures, emotional passages, and conversations. The child should be held responsible for selecting the appropriate passage in relation to the question asked and determining the necessary amount to be read.

2. *Taking the parts of characters.* Many children should have the opportunity to take the part of various characters or the part of the book before anyone is chosen for any special occasion.

[1] M. E. Pennell and A. M. Cusack, How to Teach Reading, pp. 211–212. Houghton Mifflin Company, 1924.

The "he said" and "she said" should be eliminated when the character is talking.

3. *Dramatizing with the book.* In addition to reading the speeches of the characters, the selection of places in the room which will best represent the locations described in the book, the use of simple materials for necessary costumes and properties, and the interpreting of the part of the characters through action will lend variety and interest to the oral reading. This is excellent preparation for free dramatizations.

4. *Preparing for puppet shows.* Practice in reading conversations makes possibly better expression and language for use in puppet shows.

5. *Preparing for reproduction.* Material rich in descriptive passages, but not dramatic in its character, can be read aloud to get good expression and choice use of words in order that the reproduction of the story in the child's own words may be improved.

Reading to enjoy or appreciate. Poetry for reading aloud should be selected carefully with a view to the interests of the class. The teacher should be careful to know what poems are to be read so that she can help to arouse interest by questions to bring out the main ideas of the poem, and the children may be given the opportunity to comment informally.

Section IX. Gaining a Deep and Permanent Interest and Enjoyment which will carry through Life

General assimilative and recreational reading. Much practice in reading easy interesting material seems to be the most effective means of learning to read. In other words, the easiest and most natural way to form the reading adaptation is to read interesting and meaningful content. Mr. H. C. Morrison discusses the reading adaptation as follows:

The reading adaptation is the level at which the pupil reads without focal consciousness of each word or other element of the

discourse. The following is also essential material: if the child has acquired the habit of reading for himself it is pretty good evidence of the reading adaptation. If he can make intelligent answers to questions bearing upon content, it is evidence. If he shows signs such as amusement at content, or asks questions about content, it is evidence of the reading adaptation.[1]

Access to library of about fifty books. The first requirement for assimilative and recreational reading is that the children have access to a library of as many books as the teacher can collect. These should be placed on open shelves or on a reading table for their use. Frequently the teacher has to enlist the aid of the Parents' Association to provide at least part of such a library. She will arouse the children's interest in reading to such an extent that they will bring books from home for the rest to read. She should select easy books, not used in the recitation period, which offer a wide range of interests, and if possible should provide two copies of each.

Interesting posters. Some rooms show interesting charts or posters hung about the room, each poster showing an attractive picture with a few words printed below it about a particular book. In one second-grade room[2] of the University of Chicago Elementary School were seen the following:

1. A chart which had a picture of the cover of the book "Orchard and Meadow," with these sentences printed below:

> Have you read this book?
> You will like it.
> There are some new books on the table.

2. Another chart with a picture of the cover of "Peter Pan" and an illustration from the book. It bore this message:

> Did you like the story of Peter Pan?
> You will find it on the table.

[1] From the Reading Reports, Elementary School Records, 1925–1926.
[2] Miss Hazel Menier, teacher.

3. Still another poster showing an attractive garden picture with printed material which read thus:

> Mary had a garden of her own.
> Read about it in "The Green Fields," pp. 76–82.

4. A chart with a beautifully colored bird picture advising the children to read bird stories.

5. The frontispiece from "The Story of the Five Dolls" with the question

Have you read this book?

6. A large chart with attractive pictures of children drinking milk and eating healthful foods, and the inscription

What do you eat for lunch?

7. A chart telling where Christmas stories were to be found:

CHRISTMAS STORIES

	PAGE
Tommy Tinker's Book	123
Polly and Dolly	121
Mother Goose Village	105
Ned and Nan in Holland	87
Bunny Rabbit's Diary	23
Under the Story Tree	40
A Visit from St. Nicholas	

8. An orange-colored chart with the silhouette of a squirrel on one side and a list of squirrel stories on the other:

> "Red Squirrel," in "Animal World," p. 116
> "Mr. Squirrel," in "Work-a-Day Doings," p. 5
> "How the Squirrel got Wings," in "Animal Stories," p. 86

The children stopped to read these charts when they arrived at school in the morning and as they came in from recess, and often read them aloud to one another.

Children make their own bookshelves. Another device tried successfully by this same teacher was to give to each child a small poster on which had been drawn a bookshelf. Each time the child finished a book, a little book was pasted on the shelf. By the end of the quarter every child

was able to count the number of books he had read by counting the number of books on his bookshelf. The aim was to fill the shelf by the end of the quarter.

Types of reading provided for in assimilative and recreational reading. 1. *Silent-reading periods.* The children are permitted to choose any book on the reading table. They take the chosen book to their seats and keep it there until they finish it. Half an hour each day is devoted to this period of reading for pure pleasure; but the children find a great many extra periods in the day to devote to their books, for they may be found reading before school in the morning and in the afternoon. When a child has completed a piece of work ahead of the group, he usually asks to read. When for some unavoidable reason a special teacher cannot give the children a lesson, they usually ask to be allowed to spend the time in reading. During these periods the children are given all the help they require with words they are unable to recognize. The great variation in the amount of reading is interesting. A record of each child's reading is kept, and each child knows his own record; but he does not know how many books the other children in the group have read, consequently there is no rivalry and no great temptation to read rapidly and without interest merely to have a book to report. The attitude of the children toward the books they read is a significant indication of interest or lack of it. In some groups the teacher feels that she should record the children's reading on a class chart or on separate cards which she adds to day by day. Each child has a card, and as he finishes a book the teacher records the title of the book or story and the child's comment. The general chart has value in presenting a record of all books read and is an aid to other children in selecting books. Some examples of comments made by the children after reading books are: "'Ned and

Nan in Holland' is interesting. I found out how the dikes help the people of Holland." "'Little Dog Ready' is a good book. You always wonder what he is going to do next. Every boy who has a dog should read this book." [1]

One of the elementary teachers who went to the Elementary School library to select books for the reading table in her room discovered a little girl from her group in the library. The child asked if she might help, and the teacher found that she was as familiar with the juvenile section as she herself was. She helped the teacher to select a number of books, with such remarks as, "This is a good book; I have read it twice," or, "Here is one I think the other children would like," and she would give a sketch of the story. She named at least a dozen books that she had read, and the interesting bits which she told from each indicated that she had read them with understanding.

2. *Silent reading with oral reports.* The morning reading period may consist of half-hour periods in which twenty minutes of the half hour is devoted to reading, and ten minutes to telling what has been read. Two or three children are invited each day to tell what they have read. The children consider it a privilege to be called upon to talk, and they are eager to have their turn. Since they never know when their turn is coming, they have to be prepared every day. Consequently the ten-minute period gives some of the slower pupils a motive for reading every minute of the twenty, and it is a most excellent checking-up device for the teacher.

3. *Silent and oral reading of stories cut from readers.* If the teacher is unable to procure enough books for the reading table in the early part of the year, she may cut stories from new sample readers or from readers that the

[1] Taken from the classroom teaching of Miss Menier.

children have not seen. She will mount these stories on cardboard, the pages of each story together. Two copies of each reader furnish many such reading leaflets. Inasmuch as the stories are new, the teacher can check each child's ability to understand what he reads. Two or three questions covering the important points of the story appear at the end. The children are asked to read the stories silently and also the questions. As each finishes he is asked to read the questions to the teacher and answer them. If he answers satisfactorily, he is given another story; if he encounters difficulty with any question, he is asked to re-read the part containing the answer, and if he cannot discover it for himself he is given help. When all are through with one story, some child is chosen to read his story aloud to the group. This is a real audience situation because no other child knows the story, and it serves as an incentive for the reader to do his best. He then asks children in the group the questions, and this tests their ability to comprehend. If he reads poorly, the class cannot understand or enjoy the story. They thoroughly enjoy these lessons and put forth every effort to read well enough to be chosen to read aloud. Very few children have difficulty in comprehending the stories; and when a child does, it is found that he was unable to recognize words which were keys to the thought. When the children are asked to read the paragraph aloud, these words are discovered and corrected. After this help a child is able to answer the questions. Content is kept uppermost at all times, and only so much attention is given to mechanics as is needed to enable the children to become independent. Some need more help than others.

4. *Oral reading.* Usually the class should be divided into three groups for oral reading: Group I, consisting of the slow readers, who have to be given a good deal

of special help; Group II, comprising the good readers; and Group III, comprising the readers of outstanding ability. The children in Group I are interested because they are permitted to go at their own speed. Because of the fact that they have been in such a small section and have had so many opportunities to read every day, their speed is increasing. They do not become discouraged because of their slowness, and they have a good deal of confidence in themselves because they do not have to be continually measuring themselves by the ability of the more rapid readers. Their interest and spirit will help them toward adaptation to reading. The oral lessons are varied to suit the type of material used. Some of the lessons are audience lessons with material brought in from the outside and read to the group by the pupil who brought it. A lesson of this type is described by Miss Ada Polkinghorne of the University of Chicago Elementary School as follows:

> One of the slowest children in the group came one morning and said he had been given a new book which he liked so much that he wished he might read the first chapter to the group, and if they liked it, he would leave the book in the bookcase for the children to finish. He read it quite well, had probably read it over at home in order to read it well, and he did read it well enough for the children to enjoy the story. It gave him a great deal of confidence, and his own interest in reading has been keener since. He left the book, and a number of children read it through. This gave several other children the idea that they had books the rest of the group might enjoy, and many books were brought. The teacher suggested that one shelf of the bookcase might be used for these books.[1]

Procedure with a slow second-grade group in general assimilative and recreational reading. The following procedure is described by Miss Ada Polkinghorne.[2]

[1] From the "Report on Reading," Elementary School Records, 1926–1927.
[2] Ibid.

Section I of Grade II was unusually slow in reading. Four of the seventeen children in this group entered in the fall with scores that ranged from 0 to 21.25 when measured by the Gray Oral Reading Test. Eight had scores between 21.25 and 38.25. The reading of the entire group as well as their attitude toward reading showed that they had not made the reading adaptation. They had done little or no reading during the summer, and consequently they had lost a great deal of what they had gained in the first grade.

We began our reading in this group with the F–U–N Book, which contains very easy material, and we had two group reading periods a day. Single copies of primers were added to the collection of books on the reading table in order to provide easy material for silent reading, but during the first month this group paid no attention to the reading table. They seemed to have no desire to read to themselves. When the group lessons were over they were through with reading. The example of the group of children who had not only made the reading adaptation, but who were voracious readers and constantly using the book table, seemed to have no influence upon them. They were completely satisfied with the content of "The F–U–N Book" and "Work-a-Day-Doings." They were equally well satisfied with the Winston "First Reader"; and the Lewis and Rowland "Silent Reader," Book I, with its many questions to answer and things to do, delighted them.

Several methods were used in order to improve their reading and also their attitude toward reading.

1. The reading material was kept simple for a long time in order to give the children confidence in themselves. One day, about a month after school had started, Robert said, "I like to read when I don't have to stop all the time to ask for words." This simple material was used in the following ways:

a. It was read orally and discussed.

b. A question was asked, and the children were urged to try for first place in answering the question.

c. The teacher read enough of the story to arouse the children's interest, and they were permitted to finish it by themselves. Eventually the remainder of the story was discussed by the group or told by individuals.

d. The children read the whole story silently, and then they were questioned on the content.

e. The teacher sometimes read alternately with the children in oral lessons, and they tried to make their reading as smooth as that of the teacher.

2. As soon as the children had gained confidence in themselves, first readers replaced the primers, and, very gradually, second readers were introduced.

3. The children of Group II were frequently invited to report on good books they were reading. Sometimes they read exciting or interesting parts to the entire room.

This procedure, together with their constantly improving ability to read, caused six members of Group I to take books from the library table. As a result, these six children progressed so rapidly that they were formed into a little reading group of their own, and they worked with another teacher in the afternoon. The improvement in the rest of the group has been more gradual. They are still reading second readers. All of them, however, now use the book table to some extent.

Means of determining results. The following is described by Miss Ada Polkinghorne to show the ways in which the reading ability was measured for a second grade:[1]

Voluntary silent reading. The children have displayed their interest in reading in many ways. They have read 576 books, an average of 20.5 books for each. They have never failed to ask if they might spend extra periods in reading. They have taken books home to read and brought books from home to read in school.

Standardized tests. The Gray Oral, Haggerty, Sigma I, and Monroe, Test I, Form I. Our median in the Gray Oral Test is 60, which is 17 more than the standard for the grade and an advance of 12.56 points over our own median in November. Our ratings are just as high in the Haggerty test. Our medians are 22 and 17, while the standards for our grade are only 12 and 8. The Monroe test is really a third-grade test, but because the children rated so high in the other tests were we curious to see

[1] From the University of Chicago Elementary School Records for a second grade from March to June, 1926–1927.

what they could do with a third-grade test. The standards for third grade are 3.8 in comprehension and 82 in rate. Our medians were 10 in comprehension and 126 in rate.

The reading adaptation. Every child in the group has made the reading adaptation. Evidence of this adaptation are the following observations which have been recorded concerning each individual child:

1. The children's eye-movements have been examined and found to be correct — from three to six movements to a line.

2. The children sit and read, with their interest centered upon their books. They do not waste time by looking around at every interruption, asking for drinks, etc. Many of them are so absorbed that almost anything can go on and they will remain completely unconscious of what has taken place. Richard —— sat reading long after the other children had gone to recess. When spoken to, he looked surprised and said, "I didn't know they were gone, I didn't hear them go." Another example is the following: A few days before the end of the term the student teachers were preparing for a surprise party which was to follow the silent-reading period. They carried flowers, crêpe paper, and boxes of cookies across the hall into the group room, which is right in front of the children's desks as they sit in them to read. The children were so absorbed that they saw nothing of the preparations, and when the party was brought in, it was a complete surprise to every child.

Other measures of results. Many of the parents have noticed the improvement in the children's reading because they have asked for books which the parents supposed were far beyond the children's capacity. They report that the children ask for help less often than they did; in fact, many of them never ask for words any more, nor do they ask for the meaning of words.

A library project worked out in a second-grade room. The following project is described by Miss Marjorie Hardy:

This library project helped to create an interest in books, continued training in the skillful use of books, and taught the chil-

dren how to draw out and return books. As the children became more interested in reading they suggested making a library in one corner of the room in order that they might have a quiet place in which to read and to find books. As a preparation they made a trip to the big library in the school, and upon their return talked about what they had seen in the library. They composed a chart composition about their visit which was first written on the blackboard by the teacher and then printed on a chart to read as follows:

We went to the library.
We saw many shelves of books.
We saw many people reading.
We saw a woman at the desk.
People went to the desk.
They wrote on a card when they wanted a book.

They set off space in one end of the room and used orange crates for bookshelves on which were placed sets of readers and other attractive children's books. At one end of the library was a table on which was a box containing slips of paper, a rubber stamp, and a spindle. They had to go through the following procedure in order to take books from the library:

Choose book
Get slip of paper
Stamp date with rubber stamp
Sign name on slip
Put number which is on back of book on slip
Put slip on spindle

The children were allowed to keep the books five days, and when they were returned the child who was acting librarian tore off the slip which had been put on the spindle and replaced the book on the shelf.

Results of the project. The library project has these values:

1. It stimulates a greater interest in reading.
2. It teaches children the proper procedure in drawing out books.
3. It teaches them how to use the library properly.
4. It gives them an index to the best books to read.

5. It places emphasis on the library as the source from which books may be obtained.
6. It gives practice in social behavior in a library.
7. The teacher procures evidence of the general interest toward books.
8. She gets a list of the most popular books.

Desirable levels of achievement. To quote from the Twenty-fourth Yearbook of the National Society for the Study of Education,[1] pupils who complete satisfactorily the requirements of the second and third grades have attained the following levels of achievement:

1. They have thoroughly established the habit of reading independently.
2. They interpret effectively the reading materials assigned in connection with other school activities and are able to discuss or to make use of the content of what they read.
3. They inquire about or independently seek for reading materials which relate to the problems or activities in which they are interested.
4. They read more rapidly silently than orally.
5. They are able to read orally at sight with ease and effective expression, provided the materials assigned do not contain word difficulties or difficulties of meaning.

The achievement and progress of pupils may be determined objectively at frequent intervals through the use of standardized reading tests.[2]

Section X. Summary

In the preceding pages we have stressed the fact that the second and third grades constitute the period of rapid growth in fundamental attitudes, habits, and skills. Such topics as time allotment, the relationship between silent and oral reading, and reading concerned with a large

[1] Part I, pp. 54–55, 1925.
[2] Some of these will be found in Chapter X of this book.

number of specific abilities, were taken up in the early part of the chapter. Four specific aims for this period of reading were outlined and described with a full description of procedure or type lessons for carrying out these important aims. They are as follows:

A. To secure rapid growth in habits of intelligent interpretation.

B. To increase the rate and accuracy of oral and silent reading.

C. To provide for the development of desirable habits of interpretative oral reading and of appropriate standards in specific oral-reading situations.

D. To gain a deep and permanent interest in, and enjoyment of reading which will carry through life.

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CHAPTER X

PHONETIC ANALYSIS AND WORD-RECOGNITION

Outline

I. Phonetics as an aid in teaching reading
   A. An investigation for determining methods of attack
   B. Values of phonetic training
   C. The need of developing effective habits of word-recognition shown by studies
II. Investigations in the teaching of phonetics
   A. Surveys having to do with vocabularies for primary grades
   B. Experiment to answer the question Shall we teach phonetics?
   C. The Newark phonics experiment
   D. Experiment to answer the question What shall we teach in phonetics?
   E. Cordts's investigation
   F. Phonetic content and terms
   G. What we should know
III. Methods of teaching phonetics
   A. The initial-blend method
   B. The final-blend method
   C. Combination of the initial-blend and final-blend methods
   D. Non-separation method
   E. Suggestive lessons in the teaching of phonetics
   F. When the teaching of phonetics should begin
IV. Summary

Probably no other subject in the school curriculum is the cause of more conflicting opinions than phonetic training. Teachers and supervisors are much perplexed as to what type of phonetics should be taught, what is the best procedure to follow in teaching, and in what grades phonetic instruction should be placed. Practically all educators agree that phonetics should be taught,

though they do not all agree as to content and the best method of presentation, nor as to the most advantageous time to present the subject.

Section I. Phonetics as an Aid in Teaching Reading

The child has been taught to read by word, phrase, or sentence units and finally gains the ability to recognize the word, phrase, or sentence at sight. Thus he acquires a number of sight words, and the number increases as his reading experience broadens. Eventually he needs new and difficult and more or less unfamiliar words, or words which he has encountered in reading but which he is unable to recognize. Perhaps he has had a certain amount of drill on some of these words, but finds difficulty in remembering so many sight words. He is unable to read without help if he meets new words. He responds to these new and more or less unfamiliar words in one of several ways:

1. He may ask the teacher for the word, showing complete lack of independence on his part.
2. He may attack the word through some plan of his own; that is, through some system of phonetics which he has worked out for himself. For instance, he may compare the word to a similar word and, without having had any particular training in phonetics, evolve a simple but more or less effective system of phonetics.
3. He may get the pronunciation of the word through its relation to the remainder of the sentence. This method of attacking the word through the context seems to be the most natural means for children who read widely, but it is not always an accurate one.
4. The child may have been taught a method of phonetics which enables him to recognize new and unfamiliar words.

An investigation for determining methods of attack. In an attempt to find out the natural methods of attacking new

words an investigation was carried on with four hundred Detroit children who had finished reading a basic primer and were reading supplementary primers without having had any training at all in word analysis.[1]

As a child read orally the teacher carefully observed his behavior when attacking a new word, and after he had solved it she questioned him minutely to ascertain his exact method of attack. Then she recorded the method on a blank provided for that purpose.

The result of this investigation revealed the following methods of attack and their frequencies:

Pupils solved the new words by

	Cases
1. Fitting them into the context of the sentence	68
2. Looking at an accompanying picture	67
3. Analyzing or synthesizing compound words	43
4. Analyzing a known word to get a smaller unknown word within	40
5. Comparing the new word with the rhyme word	39
6. Combining a generalized consonant with a letter group	24
7. Applying a vowel sound after generalizing it from a familiar word	19
8. Sounding syllables	7
9. Spelling words	3
10. Sounding letters	2

The methods of sounding syllables, spelling, and sounding letters occurred with such a small frequency that the children who used these methods were investigated further, and it was found that they were "repeaters" who had had phonetic training the previous term, so these cannot be counted as natural methods of attack.

In the light of this investigation it is obvious that we have not been putting sufficient emphasis upon methods of attack other than learning the sounds of letters and letter groups. To be sure, good teachers have always

[1] Nila B. Smith, "The Construction of First-Grade Reading Material," *Journal of Educational Research* (February, 1928), Vol. XVII.

called attention to these other methods of attack incidentally, but the findings of this study justify us in the belief that the most effective method of developing power in the word-getting processes is one in which all these methods of attack are taught systematically and thoroughly as needed.

Values of phonetic training. The major objective in teaching phonetics is to enable the child to develop independence in the recognition of new and unfamiliar words so that he will become a more efficient reader. A few children develop this ability naturally, but there are many others who have to be taught how to associate letter sounds with symbols. Another value resulting from the teaching of phonics is the development of good habits of enunciation and pronunciation. The study of phonics enables the child to see clearly the different parts of words and to give them their correct sounds, thus aiding him to overcome slovenly and incorrect habits of speech.

The need of developing effective habits of word-recognition shown by studies. Judd says, "If a child is going to be distracted by his efforts to recognize words we may as well anticipate the difficulty and distract him to some purpose while we teach him how to master distractions."[1]

Analysis of words cannot be omitted from any complete training of pupils. The experience of schools in this matter is unequivocal. A child can read without analysis so long as his vocabulary is small and the words are short, but sooner or later he must make analyses, and then he will be greatly helped if he has been trained in systematic methods. As to the time when this analysis should be introduced, it seems to be suggested by the dominance of oral language at the beginning of school life that the word unit be accepted at first and analysis be introduced later when it is needed to keep the word units clear.[2]

[1] C. H. Judd, Reading: its Nature and Development, Supplementary Educational Monographs, Vol. II, No. 10, p. 62. University of Chicago, 1918.
[2] Ibid. p. 141.

In discussing rate and comprehension of silent reading, Buswell says that the ability to overcome the mechanical difficulties of reading is necessary before pupils are able to make rapid progress in interpretation.[1]

Gates is assured of the value of phonetic training if it is adequately and economically acquired. He warns teachers, however, that the phonetic attack alone is insufficient. He says:[2]

> The great mistake in American teaching had been the assumption that phonetic skill was all-important and sufficient, that the other types of training could be neglected, and that the more phonetics the pupils got the better. These mistakes have resulted not only in waste but frequently in the production of a special type of difficulty in reading. So excessive has phonetic drill often been that pupils have become not only "word-form conscious" at the expense of interest in meanings but, even worse, they have also become word-detail conscious. Every word is a puzzle of phonetic parts; pupils have become phonogram jugglers. As they fail to perceive the meaning because of their excessive attention to the word-form, so they also miss the whole word-form while dissecting its elements. Reading and word study become slow, laborious, mechanical performances. Serious deficiencies in word perception and reading ability are not infrequent results. Failing to secure the assistance in recognizing words which results from a certain way of seeing them as a whole-of-significant-parts and the help which may come from utilizing the context, these pupils, overtrained in phonetics, may become not only poor in sentence and paragraph composition but slow in acquiring a reading vocabulary.

Since children do analyze, it is the business of the teacher to help them to do it effectively and to prevent waste of time and discouragement.

[1] G. T. Buswell, Fundamental Reading Habits: a Study of their Development, Supplementary Educational Monographs, No. 21, chap. ii. University of Chicago Press, 1922.

[2] A. I. Gates, The Improvement of Reading (1927), pp. 125, 126. Reprinted by permission of The Macmillan Company, publishers.

Section II. Investigations in the Teaching of Phonetics

There is a comparative lack of scientific evidence in the field of phonetics. Conclusive evidence is still lacking in regard to such questions as Shall phonetics be taught? When shall the teaching begin? What will be its content? What procedure shall be followed? We shall summarize a few of the outstanding scientific investigations concerning phonetic analysis which illustrate some of the problems indicated above.

Investigations having to do with vocabularies for primary grades. Several investigations have been made to determine a standard vocabulary for reading in the early grades. Variation in the number of words taught must necessarily result in disagreement concerning which words should be emphasized.

Thorndike's "Teacher's Word Book." In 1921 E. L. Thorndike published "The Teacher's Word Book," in which he recorded the ten thousand most common words occurring "most widely in a count of about 625,000 words from literature for children; about 3,000,000 words from the Bible and English classics; about 300,000 words from elementary-school textbooks; about 50,000 words from books about sewing, cooking, farming, and trades, and the like; about 90,000 words from the daily newspapers; and about 500,000 words from correspondence. Forty-one different sources were used." He recorded the frequency of occurrence of each word. A teacher can then determine the amount of emphasis to place on the words contained in the primers and readers she uses. Some words are so rare that they need only enough explanation to aid comprehension, but other words met with in the text would be found to be important by reference to "The

Teacher's Word Book." Thorndike says, "Children are at present taught to read words in the first year of school — words which they may actually not see again for years."

Gates's "Reading Vocabulary for Primary Grades." Arthur I. Gates selected a reading vocabulary of fifteen hundred words for the lower grades on the basis of utility, interest, and difficulty.[1]

Experiment to answer the question Shall we teach phonetics? An experiment to aid in determining the value of phonetic drills in teaching reading was made in two New Hampshire towns, Franklin and Tilton, and described by L. B. Currier and O. C. Duguid.[2]

During their first two years in school one group of children had phonetic training, and a second group had drills with quick-perception cards instead of the phonetic work. The experiment was conducted in Grades I and II, and in each grade two classes of equal size and ability were formed. The results of the experiment were summarized as follows:

1. Phonetically trained classes read generally with less speed, with less interest, with greater fatigue, and with confusion of ideas.

2. Classes not having phonetic drills read with greater interest, with increased speed, and with more expression. They were careless in pronunciation and employed more or less word substitution. Fatigue was much reduced and story reproduction was very successful.

3. Foreign children, children with impediments of speech, and children who had previously formed bad habits of pronunciation were much helped by phonetic drills.

[1] A. I. Gates, "The Construction of a Reading Vocabulary for the Primary Grades," *Teachers College Record* (March, 1926), Vol. XXVII, p. 625. Bureau of Publications, Columbia University, 1926.

[2] "Phonics or No Phonics?" *Elementary School Journal* (December, 1916) Vol. XVII, pp. 286–287.

4. Expressionless, hesitant, or habitually slow readers were greatly helped by quick-perception and sense-content methods.

5. In attacking sight work there was little difference between the average ability of those having phonetic training and those not having it.

The following year the same experiment was tried again with a third grade, which was divided into two classes. One class was given phonetic training, and the other no phonetic training. The operations were practically the same as those of the preceding year.

Still a third experiment was tried with Grades IIIA and IIIB. The class was divided into three groups according to their ability. "Pronunciation games" were given to the bright group instead of the regular phonetic drills. The words were selected from the dictionary and were phonetically unrelated; no attempt was made to choose words which were familiar to the children. This kind of drill, says the author, was of great value.

The second group, composed of careless, inattentive readers, was given intensive work with phonetics. To stimulate an interest in reading, interesting stories were read to them and afterwards dramatized. In this way an awakened interest was achieved.

The third group was composed largely of retarded children; some had recently come from foreign countries, some had parents who could not speak English, and many were from families who moved so frequently that they had not remained long enough in one school to accomplish anything. It was decided to try out the theory "learning to read by reading," and favorite stories were adapted so that they would be simple enough for the children's ability. They were written on the blackboard and developed by story-telling and sense-content methods. When

the teacher was sure the children's interest was awakened, phonetics and word drills were used.

In June these people could read third-grade books with thorough appreciation and enjoyment. Faults of pronunciation still existed, but the children were no longer discouraged or submerged, and they looked forward to each new story and each new book.[1]

The results of the five years' experimentation are reported as follows:

Phonetic drills have a very real value but are not essential to every child as a part of the daily program in primary grades.

Phonetic drills should at all times be employed with discretion and adapted to the needs of the individual child or special group.

Word-pronunciation drills have proved to be of much value. They may be only a very good device.

The Newark phonics experiment.[2] This was a controlled experiment to test the value of phonetics in the teaching of beginning reading, conducted in eight schools in Newark, New Jersey, from September, 1924, to February, 1927, under the leadership of Assistant Superintendent Elmer K. Sexton in charge of the Department of Reference and Research. Various types of schools were represented by the experiment. The plan was as follows:

1. *General plan.* Two IB grades (first half of first year) of the same school will start reading under similar conditions. One teacher will use phonics; the other will eliminate phonics entirely throughout the semester. At promotion time the experimental pupils promoted to Grade IA will continue with phonics or without phonics, as they began in Grade IB, but under two new teachers. The IB teachers will take two new IB grades but

[1] L. B. Currier, "Phonics and No Phonics," *Elementary School Journal* (February, 1923), Vol. XXIII, pp. 451–452.

[2] E. K. Sexton and J. S. Herron, "The Newark Phonics Experiment," *Elementary School Journal* (1928), Vol. XXVIII, pp. 690–701. Some parts of the quotation have been condensed.

will reverse their procedure as to the use of phonics; in this way the difference in teacher ability will be eliminated from the results. At the end of the experimental period, when test results are combined, each IB teacher in each center will have taught two classes, one phonic and one non-phonic. Each IA teacher will have done likewise. At the end of grades IB and IA the pupils will be tested to determine whether or not phonics is valuable as a part of the method of teaching beginning reading. . . .

2. Equal and controlled conditions were maintained as far as possible as to

(*a*) gradation of classes.

(*b*) size of classes.

(*c*) health conditions.

(*d*) teaching conditions, that is, both teachers used the same method, including:

(1) The adoption of the same basic principles of teaching the subject.

(2) The same plan for starting and presenting new words.

(3) The employment of the same general devices and drills.

(4) The same general plan of review work.

(5) The employment of the same kind of occupation work.

To secure equal teaching conditions so far as we can, the following points must be settled for a particular school by the principal and teachers.

(1) Same program must be followed for reading in every respect except that from the first time allotment one class will devote a certain amount each day to phonic development and drill. It is understood that the time for phonics is not extra time; it must be taken from the reading time. Principals and teachers will settle how much time shall be devoted each day to phonics. It is suggested that twenty minutes a day (ten minutes to each group) would be a fair assignment on the program. Programs must assign the same part of the morning and afternoon to each class in reading.

(2) *Same books.* Principals and teachers will make out a definite list of books which are to be followed in fixed order. Both classes should take up the use of books at the same time. This is a matter of agreement.

(3) *Same plan of teaching.* In its narrower sense this would signify what is commonly called the teacher's "method." Teachers and principals should agree to a common way of developing the new work according to accepted principles and of working out in the same way reviews, drills, and the employment of occupation work. In this connection it should be stated that both teachers are expected to teach the very best they can, using all the initiative, originality, and power at their command but following zealously the self-imposed limits of the experiment.

(4) The alphabet, if it is to be taught at all, is to be reserved to the last month of Grade IA.

(5) Teach no formal spelling in the first-grade experimental classes. The reason for this is to eliminate the factor of phonetics in the non-phonic classes.

(6) Non-phonic classes must not employ as occupation work the building of phonetic families in any form.

(7) With the exception of (6), all occupation work of classes should be the same in character and employment.

3. *Record book.* Each class shall have a record book. This will be written up once a week by the teacher and should contain a full history of the class. In the second term it will be passed on to the new teacher. It should contain:

a. Names and ages of the pupils.

b. Standing of the pupils in intelligence and preparation, according to the ratings in the kindergarten tests.

c. Absences and quarantines of the pupils.

d. Record of the absence of the teacher.

e. Copy of the daily program as it is followed.

f. Record of the time devoted to phonics. A list of the phonetic letter sounds and families which ordinarily are taught in Grades IB and IA furnished to teachers of phonics classes.

g. List of the books to be used and the order of using.

h. Any other notations which the teacher may desire to make.

The real experiment was begun on February 1, 1925, and at the end of each five-month period the following tests were given by two experienced testers under the direction of the Department of Reference and Research:

Grade IB	Grade IA
Detroit Word-Recognition Test, Form B	Detroit Word-Recognition Test, Forms A and B
Newark Word-Recognition Test	Haggerty Reading Examination, Sigma I
Newark Sentence Test	
Newark Picture-Word Matching Test	

Grade IIB

Haggerty Reading Examination, Sigma I
Newark Second-Grade Reading Test

The conclusions of the Newark experiment are reported as follows:

Nearly one thousand pupils were included in the experiment, and nearly seven thousand test papers were examined. After five months of instruction in reading, a total of 441 pupils in the phonic group and 488 pupils in the non-phonic group were given four reading tests. At the end of a ten-month period a total of 346 pupils in the phonic group and 363 pupils in the non-phonic group were tested. A standardized test which had been given in Grade IB and one additional test having two parts were used. A total of 426 pupils continued in the controlled groups through the first half of the second grade. These pupils were tested again. One new test and one test that had been given at the end of the first grade were used.

The results clearly indicate that the teaching of phonics functions very little or not at all with beginners in reading during the first five months. It begins to be of some value during the second five months but is of great value in the second grade.

Although the experiment was conducted "to test the value of phonics in the teaching of beginning reading," the results show conclusively that there is immeasurably less difference between classes taught with and without phonics than between different schools. Where results were unusually good in a class taught by a teacher using phonics, they were unusually good when the same teacher taught without phonics. On the other hand, poor results were secured in both phonic and non-phonic groups taught by the same teacher.

Although the outcome of the experiment tends to favor some phonetic instruction, beginning in the second half of the first year, just what type of phonics should be taught and to what extent are still problems for experimentation.

Experiment to answer the question What shall we teach in phonetics? Vogel, Jaycox, and Washburne made an investigation at Winnetka to determine the relative importance of letter groupings, since "the whole purpose of teaching phonograms rather than merely the alphabet is to make it possible for children to recognize such letter groupings as occur in many commonly used words." [1]

The first study was based on the vocabulary of "seven commonly used primers and first readers," the second on the Packer First Reader Vocabulary, and the third on the Housh Second Reader Vocabulary or the Seventeenth Yearbook word list, made up of words occurring fourteen or more times in ten second readers. This investigation, with results, is described in the *Elementary School Journal* for February, 1923. The frequency table (page 231) of phonograms occurring in the Packer list and in the words in the "ten more modern readers" shows the rank of the first fifty phonograms.

To the ranking of phonograms the authors add a rank of initial consonant combinations taken from the Yearbook list only. In order of importance they are *st, th, sh, gr, br, dr, wh, pl, fl, sp, ch, bl, sw, tr, cr, cl, sl, sn, sm, tw.*

We quote the following from the article by the Winnetka investigators to show the actual assignment in phonetics which Mr. Washburne has made for his first and second grades based on his experiment.[2]

[1] Mabel Vogel, Emma Jaycox, and C. W. Washburne, "A Basic List of Phonics for Grades I and II," *Elementary School Journal* (February, 1923), Vol. XXIII, p. 436.

[2] Ibid. pp. 440, 443.

Phonograms	Number of Book-Words in New List	Rank in New List	Rank in Year-book List
Sum of final *e*	325	1	1
Sum of *ee*	169	2.5	5
ed (ending)	169	2.5	7
ing (ending)	145	4	3
er (ending)	138	5	2
Sum of *ea* (eat)	135	6	4
Sum of *an*	123	7	6
Sum of *ou* (our)	105	8	12
Sum of *en*	96	9	19.5
ay	93	10	9
Sum of *oo* (good)	78	11	18
an	76	12	14
Sum of *oo* (moon)	70	13.5	21
Sum of *ar*	70	13.5	11
ing (ring)	69	15	23
Sum of *ow* (cow)	68	16.5	16
Sum of *ow* (show)	68	16.5	8
ill	63	18	19.5
Sum of *at* and *atch*	62	19	17
Sum of *it*	58	20.5	28
Sum of *in*	58	20.5	15
y (cry)	53	23	44
at	53	23	22
Sum of *ai*	53	23	10
en (ending)	52	25	13
ee	51	26.5	32
Sum of *ea* (bread)	51	26.5	39.5
all	45	28	24
ick	44	29.5	30
ake	44	29.5	29
Sum of *or*	43	31	35.5
eep	41	32.5	39.5
ook	41	32.5	38
ear	40	34.5	37
ell	40	34.5	27
op	36	36	34
un	34	37	26
Sum of *ir*	31	38.5	47.5
ight	31	38.5	35.5
old	28	40	47.5
oi	27	41	41.5
Sum of *oa*	26	42	33
ap	25	43	49
and	24	44	25
ock	21	45	43
ail	19	46	50
ed	18	47	45
on (apron)	15	48	46
ain	7	49	41.5
or (parlor)	3	50	31

NOTE. The "sum of final *e*" in this table means the sum of all phonograms in which the initial vowel was lengthened by silent final *e*; as, *ate, ike, ese.*

In our own first grade we require a knowledge of the first fifteen of the fifty phonograms, making the next five optional, and a knowledge of the first four of the initial consonant combinations. A knowledge of the short vowel sounds and all single consonant sounds is also required. In order to pass to second-grade reading a child must be able to read at sight material containing new words made up of the required phonograms or capable of being sounded correctly by the use of consonant and short-vowel sounds.

Our basic first-grade phonics list is, therefore, the following: all *short vowel sounds*; all *simple consonant sounds*; rule for lengthening *vowel before final e*; the following phonograms and letter groups: *ee*, *ed* (ending — looked), *ing*, *er* (ending), *ea* (eat), *an*, *ou* (our), *en*, *ay*, *oo* (good), *oo* (moon), *ar*, *ow* (cow), *ow* (show), *ill*, *st*, *th*, *sh*, *gr*; optional, at, it, in, y (cry), ai.

The second-grade phonics list was prepared from the Seventeenth Yearbook list of words occurring fourteen or more times in ten second readers. It was prepared before the basic list of phonograms had been made by the first-grade teachers and was therefore based on a somewhat different criterion.

We defined a phonogram as any letter grouping which occurred in five or more words in the exhaustive analytical list of the "Cordon Teachers' Manual." We selected all words containing such phonograms in the Seventeenth Yearbook word list and arranged them in the descending order of importance by book-words. Since the Seventeenth Yearbook list contains only words which occur in *all ten* of the readers analyzed, every word listed counts as ten book-words. Our phonic list, therefore, resolved itself into a list of phonograms in the descending order of the number of listed words containing them.

From the list we eliminated all that are taught in the first grade. From the remaining list we used all that occurred in *five or more words*. We then added those phonograms which were not in either of our lists but which occur in seven or more words of Thorndike's first thousand words, since sooner or later the children will surely meet these words. This yielded the following list of second-grade phonograms and consonant combinations: all consonant sounds, final *y* (country), *and*, *all*, *ent*, *ide*, *in*, *un*, *br*, *cl*, *dr*, *sp*, *wh*.

Cordts's investigation. This investigation was a study of the relative frequency of certain phonetic elements in words in children's primary readers. The vocabulary was selected from four published studies of the vocabularies of primary readers: (1) twelve beginning readers, (2) ten first readers, (3) ten second readers, and (4) ten third readers. From this entire list of words were selected all the words which appeared ten or more times in any one of the forty-two readers and which, furthermore, occurred in five or more of the different readers. The 2716 different words obtained by this method were then analyzed and their frequencies tabulated according to their phonetic content: vowels or diphthongs, initial consonants, final consonants, separate consonants, or consonants in combination with other consonants.

A brief statement of the frequency of vowels and consonants taken from this study is reported in the *Elementary English Review* for April, 1926.

The data presented in this article are based on the 422 one-syllable phonetic and phonic words (taken from the list of 2716 words) which have the so-called short-vowel sounds. The report shows

1. That in the order of frequency the "short" vowels occur as follows:

a, as in *can*, occurs in 112 different words.
i, as in *sit*, occurs in 107 different words.
e, as in *let*, occurs in 90 different words.
u, as in *cup*, occurs in 59 different words.
o, as in *hot*, occurs in 54 different words.

2. The position in which a given consonant is most frequently found in the different words: For example, the consonant *b* is found before the vowel in more than ten times as many different words as after the vowel; the consonant *n*, on the other hand, is found to occur oftener after the vowel than before it. Obviously the learning situation of *pan* (*n* occurs after the vowel) is not identical with that of *nap* (*n* occurs before the vowel).

3. What the sounds are which most frequently precede and follow a given sound in the different words. To illustrate: the consonant *m* is found to occur most frequently in the consonant combination *mp*, as in *jump*, and least frequently following *l*, as in *elm*. It is followed by the vowel *a*, as in *man* two and a half times as often as it is preceded by the same vowel, as in *swam*. *m* is relatively unimportant in the combinations *im*, as in *him*; *mu*, as in *mud*.

The importance of each consonant is shown (1) by the number of different words in which the consonant occurs singly both before and after its accompanying vowel; (2) by the number of different words in which the consonant occurs in combination with one or more other consonants both before and after the vowel. In the first classification the accompanying vowel is indicated; in the second it is not given.

A study of each of the consonants will show the teacher of phonics the relative frequency of the various consonants as they occur in the number of different words; the position in which each of the consonants occurs most frequently — whether before or after the vowel; whether a given consonant occurs most frequently singly or in combination with other consonants; and what the various combinations are in which the consonant is found to occur.

It will be noted, for example, that *s* is most important not as it occurs singly in any given word but as it occurs in combination with *t* (*st*), with *p* (*sp*), with *w* (*sw*), before the vowel, and with *t* (*ts*), with *ck* (*cks*), after the vowel. Therefore, should *s* receive more practice as the single consonant element in such combinations as *sa* (*sat*), *si* (*sick*), or as *sta* (*stand*), *spe* (*spend*), *ts* (*hats*), *cks* (*sticks*)?

The consonant *p* is also more important in its consonant combinations than singly, and more important as an element in the combination after the vowel than before the vowel. The combination *ps* occurs in as many different words as do *pa* and *pi* together. Should *ps* not receive more practice then, than either *pa* or *pi*, other things being equal?

The consonant *ch* as in *chick* and *catch* occurs more than three times as often after the vowel as before the vowel. Should it not

then receive three times the amount of practice in the former position, other things being equal?

The consonant *h* is most unique. It does not combine with any other consonant either before or after the vowel. Whenever it occurs beside another consonant we have not a consonant combination but an entirely new consonant sound. Thus we have *th, wh, ch, sh,* in *this, where, chick, ship.*

Some consonants regularly form the last element in the consonant combinations as does *r* in *tr, br, fr*; and *w* in *dw, tw*; others are always first in the combination as illustrated by *b* in *bl, br,* and *f* in *fl, fr.* Still other consonants may occupy the first, medial, or last position, as does *p* in *pr, spr, sp,* respectively. Other significant findings may be formulated from the data.

Other things being equal, the sounds of letters should be taught in the order of their importance. Some sounds occur so seldom that it is, perhaps, more economical to teach the entire word in which the sound occurs than to give practice on the sound as a separate element of the word. Such a case is illustrated by the sounds *z, y,* and the consonant combination *lp.* In a study of 422 one-syllable phonetic and phonic words having the so-called short-vowel sounds, the consonant *z* occurs in but one word, *buzz*; *y* in the two words *yes* and *yet*; *lp* in the one word *help.*[1]

Phonetic content and terms. *Phonetics.* Phonetics is the science of speech sounds.

Phonogram. A phonogram is any character or group of characters that represents a speech sound.

Sight word. A sight word is a word that the pupil learns to recognize as a whole, regardless of the letters or sounds which compose it; it may be either phonetic or unphonetic.

Blend. A blend is a close union, or fusion, of two or more sounds in a word without loss of identity of any of the sounds. It may be *ha-t* or *h-at,* or two or more consonant sounds, as *cr* in *crash, st* in *start.*

[1] From the department of Phonics by A. D. Cordts and M. McBroom, "The Classroom Teacher," Vol. II, pp. 427–429. Reprinted by permission of the publishers, The Classroom Teacher, Inc., Chicago.

What we should know. *The sounds of the letters.* 1. The sounds of the consonants:

b c d f g h j k l m n p q r s t v w x y z

2. The sounds of the vowels:

ā ē ī ō ū w̄ ȳ

3. The sounds of the diphthongs:

oi oy ou ow

4. The sounds of the vowel digraphs:

ai ay ie oa oe ow ue ew ee ea

5. The sounds of the consonant digraphs:

sh ch tch ck th wh nk ng

Seven phonetic principles. 1. Vowels are short except when modified by position:

sat	cut	notch
rip	set	fun
cot	scratch	with

2. Final *e* lengthens the preceding vowel:

cube	shade	glade
plate	hose	robe
tube	size	mete

3. In vowel digraphs the first vowel has its own long sound and the second vowel is silent:

heap	slay	tie	sleep	hoe
rail	roar	hue	plea	own

4. Vowels followed by *r* have sounds modified, making the "murmur" diphthongs:

stir	clerk	jerk	dirt	sir
mar	churn	cur	her	corn

5. There are four diphthongs, made by the union of two vowels in each case:

oi (oil)	oy (boy)	ou (out)	ow (cow)

6. *c* is soft before *e*, *i*, and *y*; otherwise it is hard. *g* is generally soft before *e*, *i*, and *y*; otherwise it is hard:

ice	can	gem	got
city	cut	gin	gun
fleecy	cot	gipsy	gang

7. In open accented syllables the vowel is usually long:

no	nation	fry	caliph
notation	diner	so	me

Section III. Methods of Teaching Phonetics

The more progressive teachers of phonetics today use the analytic method in teaching. They begin with the whole word and analyze it into its separate parts and sounds. The older method, the synthetic, began with the sounds and put them into words.

There are four widely used methods of teaching phonetics today: the initial-blend method, the final-blend method, a combination of these two methods, and the non-separation method.

The initial-blend method. The initial-blend method joins the vowel to the preceding consonant: *sa-t*, *be-d*. Examples of exercises using the initial-blend method:[1]

Exercise 1. Teaching the child to recognize by their letters the initial consonant blended with its following "short" vowel.

Suppose the blend to be taught is *ba-*. The teacher may say: "I shall pronounce several words. They all begin with the same sounds. When I have finished, be ready to tell what you

[1] From the department of Phonics, by A. D. Cordts and M. McBroom, "The Classroom Teacher," Vol. II, pp. 402–404. Reprinted by permission of the publishers, The Classroom Teacher, Inc., Chicago.

hear to be the same in all the words." She says, "*ba-ck, ba-t, ba-g, ba-d.*" The pupils say "*ba.*"

The teacher then writes these four words in a column on the blackboard:

ba-ck
ba-t
ba-g
ba-d

The pupil points to and pronounces that part of the word which he hears and sees to be the same in all. He may also underline the like parts. He calls the part or piece of the word *ba.* In like manner the other initial consonant and vowel blends may be taught.

Note that in all of these exercises the vowel remains joined to the preceding consonant in the word. The pupil learns the vowel sound and its letter in connection with the consonant which precedes it. At no time are the words separated into the parts *b-a-c-k, b-a-t, b-a-g, b-a-d.* Although at present the reading methods which use the initial blend do make this separation, it is not advised here since it is believed that such an analysis of sounds focalizes the child's attention on unnecessarily small parts of the words, and thus builds up habits which run counter to the best reading habits.

Exercise 2. Teaching the child to recognize the final consonant sounds by letter.

Suppose the consonant to be taught is *t.* The teacher may say: "I will pronounce several words that *end* with the same sound. When I have finished be ready to make the sound that you hear to be the same in each of the words."

The teacher slowly pronounces the following words, taking care to produce a clear-cut, explosive *t* as the final sound of each word:

nu-*t*
si-*t*
fa-*t*
pe-*t*
ha-*t*

The pupil gives the sound *t.* The same list of words is then placed on the blackboard. The child points out and pronounces

that part of the word which he *hears* and *sees* to be the same in all of the words. Similar means may be used to isolate other final consonant sounds.

The final-blend method. The following exercises illustrate the method of teaching the final blend.[1]

Exercise 1. Teaching the child to recognize by letter the initial consonant sounds:

Suppose the initial consonant to be taught is *s*. The teacher may say: "I'm going to pronounce several words to you. These words all begin with the same sound. Listen carefully for the sound that is the same in each of the words. When I have finished be ready to make that sound." The teacher then pronounces following as: *s-and, s-ing, s-it, s-ad, s-un.* The pupil gives the sound *s*.

If the pupil does not hear the sound distinctly enough to be able to isolate it, the teacher should pronounce the words again. Prolonging the sound of *s* before completing the word aids the pupil in both hearing and isolating the sound.

The teacher then writes the same words on the blackboard, as:

s-and
s-ing
s-it
s-ad
s-un

The pupil points out and pronounces that part of the word which he hears and sees to be the same in all. He may also underline the like parts. He calls the part or "piece" of the word *s*. Similarly, the other initial consonants may be developed.

Exercise 2. Teaching the child to recognize by letter the final consonant and "short" vowel blends, or "families":

Suppose the "family" to be taught is *and*. The teacher may say: "I am going to pronounce several words which rhyme. Listen carefully for that part of the word which sounds the same in all of the words. When I have finished tell what part is the same." The teacher then pronounces the words *sand, hand, stand, grand, band.*

[1] From the department of Phonics by A. D. Cordts and M. McBroom, "The Classroom Teacher," Vol. II, pp. 406–407. Reprinted by permission of the publishers, The Classroom Teacher, Inc., Chicago, 1927.

The pupils recognize and pronounce *and*.

The teacher then writes the same list of words on the blackboard:

s-*and*
h-*and*
st-*and*
gr-*and*
b-*and*

The pupil pronounces the words and underlines the "family" name which he hears and sees to be the same in all of the words.

Similarly, other final blends, or "families," such as *ick, end, ill*, may be developed.

Combination of the initial-blend and final-blend methods. Many teachers feel that it is not advisable to teach children to blend either one way or the other exclusively, but rather to give practice on those combinations which occur with the greatest frequency regardless of whether the consonants occur before the vowel or after it. As a matter of fact, some of the words lend themselves best to the first method, and others to the second method.

In a study made by Anna D. Cordts[1] we find that there is great variation in the frequency with which different consonants occur before or after the accompanying vowel. For example, let us look at Dr. Cordts's tables for *k* and for *h*.

k single

Frequency of occurrence *before* the vowel	Frequency of occurrence *after* the vowel
ki in 6 words	*ick* in 10 words
ke in 1 word	*ack* in 10 words
	ock in 10 words
	uck in 10 words
	eck in 10 words

[1] An Analysis and Classification of the Sounds of English Words in a Primary Reading Vocabulary (unpublished thesis, State University of Iowa).

h single

Frequency of occurrence *before* the vowel	Frequency of occurrence *after* the vowel
ha in 6 words	
hu in 6 words	
he in 4 words	
hi in 4 words	
ho in 3 words	

In studying these tables we find that *k* occurs *before* the vowel only in two cases and *after* it in five cases, whereas *h* occurs *before* the vowel in five cases and does not occur *after* it in any case. According to these tables, if children are taught only to blend consonants with preceding vowels they will not be doing justice to the *k* combinations; on the other hand, if they are taught only to combine the consonant with the succeeding vowel they will not be doing justice to the *h* combinations.

Non-separation method. The non-separation method is based on the belief that the separate letters as sounds should be given a minimum amount of emphasis or, preferably, none at all. The reason for this is that in sounding the letters separately there occurs a vocalization of sounds; as, *duh, cuh,* and *luh.* In such a case the child finds it difficult to blend *cuh-ow* to make *cow,* for he attempts to put back into the word a sound different from the true sound. The following lessons are developed on the non-separation plan:

Suggestive lessons in the teaching of phonetics.

I. Exercises to train the Ear

1. Hearing initial sounds of names of things in room.

Teacher. I am thinking of something in the room that begins like *take.*

Pupil. Is it *table*?

TEACHER. I see something that starts like *boy*.

PUPIL. Is it *box*?

2. Hearing words that sound alike in "Mother Goose" and other rimes.

TEACHER. Listen for the words that sound alike:

Humpty Dumpty sat on a wall,
Humpty Dumpty had a great fall.

PUPIL. *Fall, wall.*

TEACHER. Jack and Jill went up the hill.

PUPIL. *Jill, hill.*

The teacher gives other rimes and has the children name the riming words.

II. EXERCISES TO TEACH THE PHONOGRAMS

1. TEACHER. Yesterday you counted ten chairs. [Writes *ten* on the blackboard.] Can you think of a word that rimes with *ten*?

PUPIL. *Hen.*

TEACHER. Say the words that rime.

PUPIL. *Ten, hen.*

TEACHER. When you are older you will write with a —

PUPIL. *Pen.*

Pupils give three words that rime: *ten, hen, pen.*

TEACHER. Who can give another word that rimes with *ten*?

PUPIL. *Ben, men.*

2. The teacher may write the words on the board, allowing the individual pupils to say all the words as she points to them.

3. She may print the words on a strip of tag board with the key word underlined at the top of the list. The children pronounce the words, after which they play such games as this:

TEACHER. I am thinking of a word that sounds like *ten*, and it is what people write with.

PUPIL. Is it *pen* [pointing to pen]?

Pupils may give riddles; as, I am thinking of a word that sounds like *ten*, and she lays eggs.

PUPIL. Is it *hen*?

4. The teacher calls attention to the part that looks alike in each word. She may cover up the first letter and ask what is

left, or she may erase the first letter so that the children see the phonogram *en*. After she erases the first letters, she writes them again, each time having the children tell her what the word is.

III. Exercises to teach a Consonant

1. Teacher. We have been building a farm on the floor and we made a fence [she pronounces *fence* slowly, but does not separate the initial consonant from the rest of the word] for our field of grain. Let us say *fence*. Now can you think of any other words that begin like *fence*?

The children may give such words as *fan, fun, for, fat, fill, fell.*

2. The teacher writes the words on the board. The children say them, not giving the sound of any consonant by itself.

3. The teacher prints the words on a tag-board chart, and the children give them. They notice that each word begins with the same sound.

4. The teacher calls attention to the part that sounds alike in each word. The children may play the riddle game.

Pupil. I am thinking of a word that begins like *fence*, and it is what we have when we go to gym.

Another Pupil. Is it *fun*?

IV. Exercises to teach the Double Consonants

1. The teacher gives the key word or several words beginning or ending with a double-consonant sound. She asks the children to think of other words beginning with that sound.

2. The teacher writes the words on the blackboard as the children dictate them to her. Individual pupils say all the words.

3. The teacher prints the words on charts, and the children read them.

4. The children play the riddle game with words, although this last step may be omitted. Usually steps 1 and 2 are developed the first day. The development of the words comes on the first day, and drills on the printed forms come on the second day.

V. Exercises to teach the Short Vowels

1. The teacher gives a type word from the children's vocabulary having the short sound of *a*; as, *hat*. The pupils give other words riming with *hat*; as, *rat, cat, mat, sat*.

2. The teacher writes the words on the board. The children read them. The teacher erases the initial letter and asks what is left. She erases the final letter and asks what is left, and the children give the short sound of *a*. She builds up the words again, asking the children to pronounce as she writes.

3. The following day a chart with the same words printed on it is shown, and individual children name the words.

4. The same procedure is followed with the other short vowels. Exceptions, such as *give, have*, and *some*, are taught as sight words.

VI. Exercises to teach the Long Vowels

1. The teacher gives type words from the children's vocabulary having the long vowel sounds:

cake shine rope

2. The children contribute words having the long vowel sounds, and the teacher writes these on the board.

3. The children find that when a word of one syllable ends in *e*, the *e* is silent and the other vowel usually says its own name; that is, it is long.

4. The teacher prints the words on a chart for the group to read and use to in drills and games. The principles observed are

a. Sounds taught through grouping words of the same sound and discovering likenesses.

b. Rules not given until many words of the same type have caused difficulty.

VII. Exercises for Drill on Short and Long Vowels

1. The teacher pronounces words containing short and long vowels.

Teacher. We shall listen for long and short vowel sounds. What do you hear in words of more than one syllable? Yes, more

than one vowel. What do you hear in *coat*? [long *o*]; in *pail*? [long *a*]; in *mat*? [short *a*]; in *let*? [short *e*]; in *like*? [long *i*]; in *meat*? [long *e*]; in *cried*? [long *i*].

If there are two vowels, as *ai, ea,* what is the sound?

2. What do you hear in *star, turn, churn, lark, mark, corner, park*?

Give the sound of long *a*; of long *e*; of long *u*; of long *i*.

Give the sound of short *a*; of short *i*; of short *o*; of short *u*.

The teacher writes on the board or prints on a chart such words as

strike (long, two vowels)
beat (long, two vowels)
boat (long, two vowels)
back (short, one vowel)

VIII. Exercise to teach the Rule "When Two Vowels come together in a Word the First Vowel is Long and the Second Vowel is Silent"

This rule may be taught in the same way in which the first two were presented. The teacher may write on the board words of this type which have been causing difficulty; as,

tail heap tie coat

IX. Exercises to teach *OR, ER, IR, UR, AR*

1. Teacher. What sound do you hear in the word *born*?

Pupil. *or.*

Teacher. Can you give other words containing that sound? Such words as *horn, cork, corner, born, fork.*

2. Individual children give the words. The teacher writes them on the board. She underlines *or* in each word.

3. The teacher prints the list on the chart, underlining *or*. The following lists are suggestive of words given for these sounds:

corn	churn	fir	her	barn
fork	turn	dirt	mother	jar
horn	burn	girl	corner	mark
corner	murmur	first	winter	far
horn	hurt		fern	farm
				farmer
				star

X. Exercise to teach *oi, oy, ou, ow*

The technique followed is the same as described in other procedures. The teacher gives a word from the child's vocabulary containing *oi*, such as *boil*. The children think of other words that sound like it, and the teacher writes the list on the board. After the list is built up, she may erase the initial consonant so that the pupils see that *oil* is present in every word. She again attaches the initial consonants to the phonogram *oil*, and the pupils read the words.

XI. Teaching Prefixes and Suffixes

Prefixes	Suffixes
be	ing
com	ly
re	ful
de	tion
al	self
an	er
ex	

The teacher writes on the board words involving prefixes and suffixes. Usually these words are words the children have encountered in their reading and have found difficult. The teacher has them pronounce the words and calls attention to the *ly*, *er*, *ing*, or whatever element is stressed.

XII. Exercise to teach the Rule "*c* is Soft before *e*, *i*, and *y*; otherwise it is Hard"

The teacher writes *icy* on the board and asks the children to pronounce it. She writes *ice*, *city*, and calls the children's attention to the fact that when *c* comes before *e*, *i*, or *y*, it has a soft sound; otherwise it is hard. They are asked to give words where *c* is soft, and the teacher writes these on one side of the board; on the other side she writes words where *c* is hard. She writes on the board

I have a nice new dress.

A child asks for *new*. The teacher says: "Have you forgotten the *ew* sound? It is a *nice* day."

ice	city	cure
icy	fleecy	cat
rice	prince	come
fence		

TEACHER. What word that you know very well do you see in *nice*? [Children recognize *ice*.] Think of other words which have *ice* in them. [*Spice*, *twice*, and *mice* are named.]

All the children go to the board and write *nice* after the teacher has written it. They draw a line under the part that says *ice*.

XIII. EXERCISES TO HELP CHILDREN TO APPLY PHONETICS

The teacher must not lose sight of the fact that phonetic work is a tool to be used in reading but is not the basis in reading. She will assist the children to apply their knowledge gained in the phonetic lessons in attacking new words as they meet them in the reading lesson. She may assist the pupil in recognizing the word by reviewing the chart list of the words beginning with the same sound, or she may ask the children what word they see in this new word.

1. The teacher hangs up a chart on which is printed a miscellaneous list of words in columns. She tells the children to look for words that have *at* in them; words that have *ing*; words that have *it*. The children read the whole chart.

2. TEACHER. When you are reading and come to a word with two *m*'s in it, what does it tell you?

PUPIL. That the vowel is short.

The teacher pronounces *running*, *hammer*, *butter*, *rattle*, *runner*, *hotter*.

3. In reading a sentence a child says *garden* for *hay*.

TEACHER. *Hay* is a short word; *garden* is a long one. It couldn't be *garden* when it begins with that sound [points to *hay*]. Here is a chart with all the words on it that begin with that sound. [She has the child read the chart, and he soon gets the sound of *h* by reading it.]

horn	her
him	hit
hat	

4. The children are bothered with *know*. The teacher writes the word *know* on the blackboard, underlining it. She says: "The *k* and *w* are not sounded. What does *no* say?"

5. Drill on words beginning with the same initial consonant: The teacher hangs a chart with a list of words beginning with *w*.

TEACHER. It *was* a nice day. Point to *was* on the chart. Ready! All listen for the word that begins with *w*! Two girls *were* in the room. What is the word? Yes, *were*. Who can find it on the chart?

All the words in the list are given by the teacher in this way and are then pronounced in order by the pupils.

When the teaching of phonetics should begin. Most teachers feel that phonetics should not be taught until the children have formed the habit of reading for thought and have had practice in reading a quantity of narrative material. They should have acquired a stock of easy familiar sight words and should of their own accord have begun to notice likenesses and differences in words.

SECTION IV. SUMMARY

1. Different educators hold contradictory opinions concerning the value of teaching word analysis. Until it has been definitely proved that such training is not of value and until other types of training which are more effective have been formulated, it would seem that a common-sense program in word analysis is entirely in order.

2. Investigation has shown that a very small percentage of the general rank and file of first-grade pupils in public schools develop and apply the ability to generalize and blend sounds unaided and without training.

3. Children who possess this natural phonetic sense, which they develop of their own accord and *independently* apply, should be excused from phonic practice and be

given exercises designed to develop reading abilities other than word-recognition.

4. An *over*emphasis of phonics establishes such harmful habits as progressing in small units, narrow eye-voice span, and a too explicit articulation and comprehension.

5. Training in word analysis should constitute only one part of a well-balanced program, a program which also makes provision for the development of appreciation, comprehension, interpretation, speed, and good habits of eye-movement.

6. The teaching of phonics should be deferred until pupils have developed a desire to read, have acquired a fairly good vocabulary of sight words, have had practice in reading narrative material, and have begun to notice likenesses and differences in words.

7. Pupils should be taught the sounds of those elements which have been scientifically determined as being those of the greatest usefulness.

8. The work in word analysis should have a close connection with needs arising in the reading lesson.

9. Such training should proceed from the larger units to the smaller ones and from the known words or elements to the unknown, or new, words or elements.

10. Pupils should be taught both to blend the preceding consonant with the succeeding vowel, and the succeeding consonant with the preceding vowel, according to the frequency with which the different combinations are found.

11. Classes should be divided into ability groupings, and instruction be given according to the weaknesses of each particular group.

12. Inexperienced teachers and teachers who are not successful in teaching the word-getting processes should employ a definite technique which has previously proved its effectiveness through actual classroom application.

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CHAPTER XI

GENERAL ASSIMILATIVE AND RECREATIONAL READING

Outline

I. Relation to other types of reading
II. Meaning of terms
III. Materials of assimilative and recreational reading
IV. Values of assimilative and recreational reading
V. Steps in the development of assimilative and recreational reading
VI. Making records of assimilative and recreational reading
VII. Testing for comprehension
VIII. Book nooks and libraries for elementary schools
IX. Fifty books suitable for kindergarten reading table
X. Forty books suitable for first-grade reading table
XI. Fifty books suitable for second-grade reading table
XII. Sixty books suitable for third-grade reading table
XIII. Summary

Section I. Relation to Other Types of Reading

A primary aim in the teaching of reading is to give children the ability to secure meaning from the printed page. To accomplish this aim there have been developed various desirable procedures described in preceding chapters. A second objective is to develop such strong motives for reading and such permanent interests in it as will inspire the present and future life of the reader and provide for the wholesome use of leisure time.

This includes not only permanent interests in reading in a narrow sense of the term, but in addition keen interests in life, in the world and its people, . . . and the habit of reading systematically for recreation and intellectual stimulation.[1]

[1] The Twenty-fourth Yearbook of the National Society for the Study of Education, Part I, p. 11.

The achievement of the first aim is aided materially by making provision for and working out the second. As Thorndike says, "Perhaps it is in their outside reading of stories and in their study of geography, history, and the like, that many school children really learn to read."[1] This chapter, then, will take up procedures used in the primary grades to carry on assimilative and recreational reading.

Section II. Meaning of Terms

Recreational reading is defined as reading that is associated with enjoyment of leisure time and is generally done with no conscious purpose but rather because of curiosity or a search for pleasant occupation. Recreational reading is usually thought of as that which is not done to meet the requirements of a recitation. Immediate interest and curiosity impel the child to read, and surely a large part of this so-called recreational reading should be as independent and free as possible. However, while some periods may be devoted to extensive silent reading of books which are suited to the different interests of the individuals, many teachers feel that it is wise to follow some of this reading with discussions and checks to see if the children are assimilating what they are reading. Thus we include in our discussion both types and procedures, assimilative and recreational.

Section III. Materials of Assimilative and Recreational Reading

The teacher's problem is to provide the children with a wide and wise selection of good books adapted to individual needs and interests. Good reading material must

[1] E. L. Thorndike, "Reading as Reasoning," *Journal of Educational Psychology* (June, 1917), Vol. VIII, p. 332.

be suited to the varying development of the children; it must be as varied as are the interests of the children. It should consist of picture books, "Mother Goose," animal stories, adventure, fairy tales, poetry, easy reading along the lines of nature stories and community life, stories of peoples of other lands, and various readers of the modern and more progressive type.

Section IV. Values of Assimilative and Recreational Reading

Broadening of experiences. Independent silent reading is experience, because it opens the gateway to the present that is within our immediate environment and it also opens the gateway to the past. As Emily Dickinson says:[1]

> There is no frigate like a book
> To take us lands away,
> Nor any coursers like a page
> Of prancing poetry.
>
> This traverse may the poorest take
> Without oppress of toll;
> How frugal is the chariot
> That bears a human soul!

The child who is taught to find information for himself in books may learn in a short time facts that the child who does not read learns after years of experience. The reading habit creates a resourcefulness that will prove an inexhaustible joy all through life. Reading enlarges the child's outlook on life and helps him to build higher social and personal ideals. The cultivation of a taste for wide and wholesome reading is essential to the enjoyment of the best in life.

[1] From the Complete Poems of Emily Dickinson. Copyrighted by Little, Brown and Company.

Cultivation of a wider variety of interests in reading. Assimilative and recreational reading offer opportunity for the child to read on a variety of subjects. A child who has one interest may through contact with books be led to be curious about other topics. Through the stimulus of the teacher's suggestions and by means of attractive posters and class discussions on different subjects, he is indirectly guided toward many interests in reading. The great number of interests of children in the primary grades can be satisfied only in an environment where there is an abundance of reading material of sufficient scope to suit the interests and capacities of all.

Beginning the formation of desirable reading habits and attitudes. The child must be led to form good reading habits just as he is taught good habits in health and hygiene. In providing contact with good books we lay a solid foundation upon which all later reading will be based. The important thing is to create and develop an attitude toward books and toward reading for pleasure and information that will give promise of becoming permanent.

Section V. Steps in the Development of Assimilative and Recreational Reading

Assembling books. Since the children's reading can be satisfied only in an environment where there is a fair amount of reading material, the teachers of the kindergarten and primary grades should assemble a collection of books suited to the age and development of the children of their respective groups. Such a collection may be bought by the school board or borrowed from the public library, and placed on a low table or on accessible shelves so that the children may have an opportunity to handle them and select for reading the books that appeal to them.

A NOOK IN THE UNIVERSITY OF CHICAGO ELEMENTARY SCHOOL LIBRARY

Courtesy of the University of Chicago Elementary School

If there is a meager supply the teacher may add books which the children may donate, pictures with explanatory sentences or stories attached, and stories cut from old readers and mounted.

Ways of using books. Kindergarten children may have a library corner where they enjoy looking at picture books of a wide variety: "Mother Goose" and other jingles, fairy tales, nature materials, and community-life stories. This may be the first step in the early part of the first grade, when the pupils have not gained the ability to read but have a curiosity and love for what the book "tells."

After the period when the children look at books, there should be a period during which they may show the pictures from any books they have selected from the library table. In the beginning they are satisfied to show the pictures, but soon there is a desire to read the legends under the pictures. At first the teacher reads the stories for them, but as time goes on she encourages the children to read them for themselves. In the preceding period she gives assistance to different ones in the group so that they may read parts aloud to the class. As time goes on, the discussion and story-hour period includes more and more reading aloud and more and more silent reading.

Reading club or library club. In the second or third grade the pupils may organize themselves into a reading club, where on certain days every week they assume responsibility in discussing a book and reading part of it aloud.

Posters to create interest in books. The teacher who wishes to make a success of assimilative and recreational reading will leave no stone unturned to lead children toward the joy of extensive reading. She will make attractive posters to hang around the room, with suggestive pictures and such captions as

> This little girl reads at home. Do you?
> Read good books!

Other illustrations of posters are described in Chapter IX, "Reading in the Second and Third Grades."

MAGAZINE CORNER IN THE UNIVERSITY OF CHICAGO ELEMENTARY SCHOOL LIBRARY

Courtesy of the University of Chicago Elementary School

Procedure in a second grade where the pupils showed books and discussed them. The children were asked to bring from home their favorite books. With the exception of one child they responded splendidly to this suggestion, and when the books were all placed on the reading table the result was indeed a pleasing and interesting collection. During the first part of the class period the children were allowed to look through each others' books to read them or merely to look at the illustrations. When their curiosity had been partly satisfied they were asked to bring their books and come to the chairs in the front of the room. The following conversation shows how the lesson proceeded:

TEACHER. What books did you bring?

PUPIL. The books we like the very best of all.

TEACHER. That's right. John, you may tell us about your book.

John stood before the group, holding his book for all to see, and said: "I brought this book because I thought you would like it, for I think it is so funny. It is called 'The Adventures of Doctor Doolittle.'"

TEACHER. John, will you tell us a part of the story?

John began the story and continued until he approached the climax, when the teacher interrupted him by saying: "John, please don't tell the children the rest of the story. They can find it in the book and read it for themselves." More books were shown, but as each child reached the climax of the story he was stopped so that the curiosity of the others would lead them to read the story for themselves. Some of the books shown and discussed were "The Little Lame Prince," "Robinson Crusoe," "Hansel and Gretel," "Raggedy Andy," "The Little Red Balloon," "Little Tots," "Sleepy Time," "Alice in Wonderland," and "Heidi."

Section VI. Making Records of Assimilative and Recreational Reading

A record of the reading done is desirable for the following purposes:

1. To discover individual interests and tastes.
2. To determine the extent to which the instruction in the content studies, such as the social sciences and literature, carries over and develops interests.

Three examples of such records are given below.

Records in card catalogues. Such a catalogue of all the books read by each child shows how many books each child reads during the school year and gives a general idea of the rate of reading. Some of the helpful entries are as follows:

Name of child.
Name of book.
Date when book was begun and finished or the time it took to read it.
Brief comment.

A large chart hung on the wall. Such a chart may be entitled "Books We Have Read this Year." This chart may be ruled into spaces, one for each child. As soon as a child finishes a book, the teacher writes the title in his space. If the date on which the book was finished is entered, progress made by individual children is recorded.

Individual records kept by children. A plan with more mature third-grade readers may have to do with individual records. The children are requested to record their readings one day each week. Each child is expected to keep in his notebook or on library cards the titles of all books which he reads at home and at school, together with the authors and the date upon which each reading was completed. If only a part of a book is read, the chapters or

pages are recorded. Once a week, usually on Friday, he transfers this record to the permanent school sheet, which is kept on file in the library.

Section VII. Testing for Comprehension

The teacher may make out sets of questions on some of the more widely read books, to be answered either orally or in writing as soon as the child finishes the book. Such questions should be so prepared that the child can answer them in as few words as possible. The teacher can check the answers quickly, and is able to judge how well the child has assimilated the book. Types of such tests are found in Chapters IX and XII of this book.

If we are to teach children to read and enjoy books we must teach them how to draw books from the library and how to treat books. The teacher may carry out a library project similar to the one described in Chapter IX. She should take her class on several visits to the public library in connection with such a project. These desirable habits should be taught:

1. How to draw out books.
2. Responsibility in returning books on time.
3. How to care for books.
4. How to use bookmarks.
5. Care in replacing books.
6. Habit of quiet behavior in library.

Section VIII. Book Nooks and Libraries for Elementary Schools

Suggestions for establishing book nooks and libraries for children are gained from the two descriptions which follow.[1] The first tells how the problem is met in the San

[1] From the *Christian Science Monitor*, October 12, 1927.

Antonio schools under the supervision of Miss Elma Neal, supervisor of elementary education; the second describes the David Copperfield Library in London.

This [distribution of the right kind of books to pupils in the elementary schools of San Antonio] is done through a collection known as a book nook in every room in each elementary school of the city, more than 400 in all, the board of education having appropriated $15,000 for the purpose in the last three years.

"A book nook is not a library," says Miss Neal. "It is just a collection of books particularly suited to the age and development of the pupils it supplies. The book nook may occupy all sorts of inconspicuous places — a few shelves placed in an alcove, a hitherto unused corner, or it may crowd up in a neighborly fashion with desks and chairs of the little pupils. But regardless of where it is, its service and pleasure are very real. There is a reading table with a vase of bright-colored flowers, and little chairs just suited to the size of the pupils who occupy them."

Free periods of free reading. "Beyond the table are the volumes that lead into the land of adventure, into history, folklore, and ever so many other realms, including nursery rhymes and 'Mother Goose' for beginners. And once every day each child in the public schools has a free period which may be spent in reading just the book he likes in the book nook."

The children are also encouraged to bring their own books to school and these are circulated among them, the individual teachers seeing that only the better types of reading matter are placed at the disposal of the pupils. Standard children's magazines are also provided and the children are encouraged to read them.

Training for leisure hours. "One of the main objects of this work," Miss Neal says, "is to train the children for their leisure time. If they know what good reading is, and have acquired a taste for it, they will never be at a loss over what to do with their free time. In fact, I believe that if you want to Americanize the boy or girl, there is no better way than by the common body of literature of the country."

The David Copperfield Library

In Somers Town, London, at No. 13 Johnson Street, is a house of the comfortable solid architecture of the period of 1800 on which is a tablet inscribed. On it we can read "Charles Dickens lived here as a boy." and at 5 o'clock of an afternoon you may see at the door an eager group of children, some of them ragged and unkempt, some of them clean and well-darned, and all of them with but one thought, to gain admittance into their loved library, where 20 of their own number act as staff, where every reader dons a colored smock and where the precious books are to be handled and loved and read.

The librarian of this remarkable book-house tells most delightfully of the David Copperfield Library in a book of his own. John Brett Langstaff, president of the Children's Libraries Movement, is blessed with an understanding love of children which shines through the pages of his book "David Copperfield's Library," as well as in the remarkable work he has done in assembling and conducting this ideal and unique library.

Who but an understanding heart could have designed the many-colored smocks which every child dons before he reads, and which turn them from ragged little boys and girls of London slums, into artists at work in a book studio? Who else could have thought of creating a staff with such titles as "Master of Keys" to unlock the cupboards, "Master of Robes," to superintend the smocks, a "Fairy Dungeon," for the small brothers and sisters who must be minded but who cannot handle the precious books, a Wigwam for the Silence Room coveted by older boys and girls!

What fun it would be to walk into a room where everything is designed to be "as comfortable as possible for children" and as uncomfortable as possible for grown-ups! Where the armchairs are made to fit small figures, the book-shelves are three feet high and everything is properly proportioned!

So widespread is the interest in this library which serves the double purpose of keeping fresh the memory of one of England's greatest writers, and of furnishing an oasis of comfort and cheer in the lives of the children of Johnson Street, that gifts have poured in from many countries. The Burgomaster of Leyden made a special pilgrimage to present a collection of Dutch chil-

dren's books; the French Ambassador brought a gift of juvenile literature, and America sent liberally and enthusiastically from all parts of the country. The children's librarians of New York presented a series of six panels done by Leslie Brooke. Many artists gave their time, original work, and loving encouragement to the "adventure," as Mr. Langstaff calls his experiment.

And if any of you boys and girls who are beginning to turn to the bigger books loved by your fathers and mothers, and who want to know why the whole world loves "David Copperfield," have not had the delight of reading about Dora and David and the little mother and the quaint Micawbers, you have a treat before you. The publishers have prepared a delightful, readable copy with illustrations that indeed make David come alive.

The following lists of books used in the kindergarten and primary grades of The University of Chicago Elementary School are included to aid in the selection of books for these groups.[1]

Section IX. Fifty Books Suitable for Kindergarten Reading Table[2]

About Bunnies. G. N. Muter. Volland. (Cloth Art Toy Books)
Baby's A-B-C and 1-2-3 Book. Samuel Gabriel & Sons Co. (Linenette) 899
Billy's Farm Friends. F. Richardson. Volland. (Cloth Art Toy Books)
Chicken World. E. Boyd Smith. G. P. Putnam's Sons.
Child's Garden of Verses. R. L. Stevenson. Charles Scribner's Sons.
Children at Play in Many Lands. J. Rae. Volland. (Cloth Art Toy Books)
Eddie Elephant. J. B. Gruelle. Volland.
Everything and Anything. D. Aldis. Minton Balch. (Poems)
Farm Book, The. E. Boyd Smith. Houghton Mifflin Company.
Four-footed Friends. Samuel Gabriel & Sons Co. (Linenette 800)
Funny Little Book, The. J. B. Gruelle. Volland.
Good Little Children from A to Z. G. N. Muter. Volland. (Cloth Art Toy Books)

[1] Two Hundred Titles Selected from the Reading Tables of the Primary Grades, The University of Chicago Elementary School, The University of Chicago, January 27, 1928.

[2] Compiled by Olga Adams and Gertrude M. Phillips

I Live in a City. J. S. Tippett. Harper & Brothers. (Poems)
Johnny Crow's Garden. L. L. Brooke. Frederick Warne & Co., Ltd.
Little Bim the Circus Boy. G. N. Muter. Volland. (Cloth Art Toy Books)
Little Black Sambo. H. Bannerman. Donohue or Stokes edition.
Little Brown Bear. J. B. Gruelle. Volland.
The Little Chick that Would Not Go to Bed. E. G. Diehl. Samuel Gabriel & Sons Co.
The Little Dog that Would Not Wag his Tail. E. G. Diehl. Samuel Gabriel & Sons Co.
Little Jack Horner. Illustrated by Blanche Fisher Wright. Rand, McNally & Company.
The Little Kitten that Would Not Wash its Face. E. G. Diehl. Samuel Gabriel & Sons Co.
The Little Rabbit that Would Not Eat. E. G. Diehl. Samuel Gabriel & Sons Co.
Little Small Red Hen. Donohue.
Little Sunny Stories. J. B. Gruelle. Volland.
Mother Goose. Volland edition.
My Automobile Book. Samuel Gabriel & Sons Co. (Linenette 894)
My Book of Birds. Samuel Gabriel & Sons Co. (Linenette 817)
My Book of Pets. Volland. (Cloth Art Toy Books)
My Twin Kitties. E. G. Diehl. Samuel Gabriel & Sons Co. (Linenette 800)
My Twin Puppies. E. G. Diehl. Samuel Gabriel & Sons Co.
My Wild Animal Book. Samuel Gabriel & Sons Co. (Linenette 802)
Night before Christmas, The. Samuel Gabriel & Sons Co. (Linenette 812)
Nonsense A-B-C's. Edward Lear. Rand, McNally & Company.
Now We Are Six. A. A. Milne. E. P. Dutton & Company. (Poems)
Our Child's Favorites. Illustrated by Blanche Fisher Wright. Rand McNally & Company.
Over Land and Sea. Samuel Gabriel & Sons Company. (Linenette 823)
Polly Flinders. Illustrated by Blanche Fisher Wright. Rand, McNally & Company.
Raggedy Ann and Andy. J. B. Gruelle. Volland.
Railway Book. Samuel Gabriel & Sons Company. (Linenette 803)
Seashore Book. E. Boyd Smith. Houghton Mifflin Company.
Silver Pennies. Edited by Blanche Jennings Thompson. The Macmillan Company. (Poems)
Sunny Rhymes for Happy Children. Olive Miller. Volland. (Poems)
Tale of Jemima Puddleduck. Beatrix Potter. Frederick Warne & Co., Ltd.
Tale of Peter Rabbit. Beatrix Potter. Warne or Gabriel edition.
Tale of Mrs. Tittlemouse. Beatrix Potter. Frederick Warne & Co., Ltd.

Tale of Squirrel Nutkin. Beatrix Potter. Frederick Warne & Co., Ltd.
Three Bears. Donohue.
Three Little Pigs. Donohue or Gabriel edition.
Tommy Tittlemouse. Illustrated by Blanche Fisher Wright. Rand, McNally & Company.
The Toy Animals and Tinkle the Tired Fairy. J. Rae. Volland. (Cloth Art Toy Books)
When We Were Very Young. A. A. Milne. E. P. Dutton & Company. (Poems)

Section X. Forty Books Suitable for First-Grade Reading Table [1]

Ameliar-Anne and the Green Umbrella. C. Heward. Macrae-Smith Co.
Bobbs-Merrill Primer. Baker and Baker. The Bobbs-Merrill Company.
Burgess Bird Book for Children. Little, Brown and Company.
Caldecott Picture Books. Frederick Warne & Co., Ltd.
Child-Library Readers. W. H. Elson. Scott, Foresman and Company.
Child-Story Readers. Freeman, Storm, Johnson, and French. Lyons and Carnahan.
Children's Own Readers. M. E. Pennell and A. M. Cusack. Ginn and Company.
Children's Corner. H. W. Le Mair. David McKay Co.
Clean Peter and the Children of Grubbylea. O. Adleborg. Longmans, Green & Co.
Dutch Twins Primer. L. F. Perkins. Houghton Mifflin Company.
Elson Readers. W. H. Elson. Scott, Foresman and Company.
Everyday Doings at Home. E. Serl. Silver, Burdett and Company.
Everything and Anything. D. Aldis. Minton Balch.
Farm Book. E. Boyd Smith. Houghton Mifflin Company.
Field-Martin Primer. Ginn and Company.
F–U–N Book. M. G. La Rue. The Macmillan Company.
Gordon and his Friends. S. C. Bryant. Houghton Mifflin Company.
Grandpa and the Tiger. C. Heward. Macrae-Smith Company.
Granny Goose. J. Rae. Volland.
Happy Children Readers. M. E. Pennell and A. M. Cusack. Ginn and Company.
In Animal Land. M. G. La Rue. The Macmillan Company.
Johnny Crow's Garden. L. L. Brooke. Frederick Warne & Co., Ltd.
Johnny and Jenny Rabbit. E. Serl. American Book Company.
Lincoln Readers. C. J. Anderson. Laurel Book Co.

[1] Compiled by Majorie Hardy, Nina Jacob, and Gertrude M. Phillips.

Little Black Sambo. H. Bannerman. Frederick A. Stokes Company.
Little Girl who Curtsied. M. Baker. Duffield & Company.
New Barnes Readers. Dressall, Robbins, and Graff. Laidlaw Brothers.
Old Mother Goose. English Edition. Thomas Nelson & Sons.
Peter Patter Book. L. F. Jackson. Rand McNally & Company.
Reading Literature, Primer and First Reader. Free and Treadwell. Row, Peterson & Company.
Singing Farmer. J. S. Tippett. World Book Company.
Story of Milk. Laura Zirbes. Keystone View Company.
Surprise Stories. Marjorie Hardy. Wheeler Publishing Company.
Tale of Peter Rabbit. Beatrix Potter. Frederick Warne & Co., Ltd.
Under the Story Tree. M. G. La Rue. The Macmillan Company.
Velveteen Rabbit. Marjorie Williams Bianco. Doubleday, Doran and Company.
Wag and Puff. Marjorie Hardy. Wheeler Publishing Company.
When We Were Very Young. A. A. Milne. E. P. Dutton & Company.
Winnie the Pooh. A. A. Milne. E. P. Dutton & Company.
Winston Companion Primer and First Reader. Firman and Maltby. John C. Winston Company.
Winston Primer and First Reader. Firman and Maltby. John C. Winston Company.

Section XI. Fifty Books Suitable for Second-Grade Reading Table [1]

About Harriet. G. W. Hunt. Houghton Mifflin Company.
Adventures of a Brownie. Mrs. D. M, Craik. J. B. Lippincott Company.
Adventures of the Greyfur Family. V. Nyce. J. B. Lippincott Company.
Adventures of Reddy Fox. T. W. Burgess. Little, Brown and Company.
Adventures of Twinkly Eyes. A. Chaffee. Milton Bradley Company.
Ameliar-Anne and the Green Umbrella. C. Heward. Macrae-Smith Co.
Arabella and Araminta Stories. G. Smith. Dodd, Mead and Company.
Bad Little Rabbit. M. Bigham. Little, Brown and Company.
Best Stories. Marjorie Hardy. Wheeler Publishing Company.
Black-eyed Puppy. K. Pyle. E. P. Dutton & Company.
Bobby and Betty with the Workers. K. E. Dopp. Rand McNally & Company.
Bobby of Cloverfield Farm. H. Orton. Frederick A. Stokes Company.
Bojabi Tree. E. Rickert. Doubleday, Doran and Company.
Bunny Rabbit's Diary. M. F. Blackburne. Little, Brown and Company.
Child's Garden of Verses. R. L. Stevenson. Charles Scribner's Sons.

[1] Compiled by Ada R. Polkinghorne, Hazel Menier, and Gertrude M. Phillips.

Cubby Bear. L. B. Ellingwood. Ginn and Company.
Dutch Twins. L. F. Perkins. Houghton Mifflin Company.
Field and Tree. Z. Meyer. Little, Brown and Company.
Fifty Famous Stories Retold. J. Baldwin. American Book Company.
First Lessons in Nature Study. E. M. Patch. The Macmillan Company.
Friendly Fairies. J. B. Gruelle. Volland.
Good Times on the Farm. E. E. C. Dietz. Newson & Company.
Grasshopper Green and the Meadow Mice. J. Rae. Volland.
Great Adventure of Mrs. Santa Claus. S. Addington. Little, Brown and Company.
Happy Jack. T. W. Burgess. Little, Brown and Company.
In Animal Land. M. G. La Rue. The Macmillan Company.
In Fable Land. E. Serl. Silver, Burdett and Company.
In Fairy Land. E. Serl. Newson & Company.
In the Animal World. E. Serl. Silver, Burdett and Company.
Johnny and Jenny Rabbit. E. Serl. American Book Company.
Little Dog Ready. M. F. Stryker. Henry Holt and Company.
Lost Monkey. L. W. Rice. Newson & Company.
Mrs. Peter Rabbit. T. W. Burgess. Little, Brown and Company.
Nature Stories. M. Gardner. The Macmillan Company.
Ned and Nan in Holland. Olmstead and Grant. Row, Peterson & Company.
New Stories. Marjorie Hardy. Wheeler Publishing Company.
Old Mother West Wind. T. W. Burgess. Little, Brown and Company.
Peter and Polly in Winter. R. Lucia. American Book Company.
Peter Pan for Little Folks. D. C. O'Connor. The Macmillan Company.
Picture Tales from the Russian. V. Carrick. Frederick A. Stokes Company.
Pinafore Palace. Wiggin and Smith. Doubleday, Doran & Company.
Pinocchio. Collodi. Ginn and Company.
Polly and Dolly. M. F. Blackburne. Little, Brown and Company.
Red Feather. M. E. Morcomb. Lyons and Carnahan.
Robinson Crusoe. Edited by James Baldwin. American Book Company.
Six Little Ducklings. K. Pyle. Dodd, Mead and Company.
Stories of Animal Village. E. C. Richey. Beckley-Cardy.
Story of Mrs. Tubbs. H. Lofting. Frederick A. Stokes Company.
The Princess and the Goblin. G. Macdonald. J. B. Lippincott Company.
Under the Story Tree. M. G. La Rue. The Macmillan Company.

Section XII. Sixty Books Suitable for Third-Grade Reading Table [1]

American History for Little Folks. Blaisdell and Ball. Little, Brown and Company.
American-Indian Fairy Tales. W. T. Larned. Volland.
Arabian Nights' Entertainments. Told by M. A. L. Lane. Ginn and Company.
Arabian Nights Stories. Edited by P. Colum. The Macmillan Company.
As the Goose Flies. K. Pyle. Little, Brown and Company.
At the Back of the North Wind. G. Macdonald. The Macmillan Company.
Book of the Sagas. A. S. Hoffman. E. P. Dutton & Company.
Boys and Girls of Discovery Days. C. S. Bailey. Flanagan.
Boys' King Arthur. Sidney Lanier. Illustrated by Wyeth. Charles Scribner's Sons.
Burgess Animal Book. Little, Brown and Company.
Cave Twins. L. Perkins. Houghton Mifflin Company.
Child Life in Other Lands. H. A. Perdue. Rand McNally & Company.
Children of Dickens. S. M. Crothers. Charles Scribner's Sons.
Children of History (Early Times). M. S. Hancock. Little, Brown and Company.
Children of History (Later Times). M. S. Hancock. Little, Brown and Company.
Children's Book of Christmas. J. C. Dier. The Macmillan Company.
Child's Book of Modern Stories. A. M. Skinner. Duffield & Company.
Christmas Tales and Verse. C. Field. Charles Scribner's Sons.
Crack in the Dish. R. A. Clarke. Little, Brown and Company.
Cruikshank Fairy Book. G. P. Putnam's Sons.
Davy and the Goblin. C. E. Carryl. Houghton Mifflin Company.
Doctor Doolittle's Circus. H. Lofting. Frederick A. Stokes Company.
Don Quixote. Edited by E. A. Parry. Dodd, Mead and Company.
Dutch Twins. L. F. Perkins. Houghton Mifflin Company.
Fables and Folk Stories. H. E. Scudder. Houghton Mifflin Company.
Fairy Tales, Book of. Charles Perrault. E. P. Dutton & Company.
Fifty Famous People. D. Baldwin. American Book Company.
Fifty Famous Stories Retold. D. Baldwin. American Book Company.
Firelight Fairy Book. H. Beston. Little, Brown and Company.
For Days and Days. A. Wynne. Frederick A. Stokes Company.
Garden Behind the Moon. K. Pyle. Charles Scribner's Sons.
Goblins of Haubeck. Mrs. A. Reid. Robert M. McBride & Company.
Happy Jack. T. W. Burgess. Little, Brown and Company.

[1] Compiled by Agnes Morrissey, Laura Oftedal, and Gertrude M. Phillips.

Heidi. Spyri. (School edition.) Ginn and Company.
In the Days of Giants. A. F. Brown. Houghton Mifflin Company.
Indian Days of the Long Ago. E. S. Curtis. World Book Company.
Indian Old Man Stories. F. B. Linderman. Charles Scribner's Sons.
Japanese Fairy Tales. L. Hearn. Boni & Liveright.
Johnny Blossom. D. Zwilgmeyer. The Pilgrim Press.
Jungle Book. Rudyard Kipling. Doubleday, Doran & Company.
Lief and Thorkel. Mrs. D. S. Snedden. World Book Company.
Little People Who became Great. Mrs. L. A. Large. W. A. Wilde Company.
Little Princess. F. H. Burnett. Charles Scribner's Sons.
Log Cabin Days. Blaisdell and Ball. Little, Brown and Company.
Men Who Found America. F. W. Hutchinson. Barse & Hopkins.
Merry Animal Tales. M. A. Bigham. Little, Brown and Company.
Mr. Marionette. K. Colville. Houghton Mifflin Company.
Norse Stories. H. W. Mabie. Rand McNally & Company.
Our Little Norwegian Cousin. M. H. Wade. The Page Company.
Peterkin Papers. L. P. Hale. Houghton Mifflin Company.
Poppy Seed Cakes. Margery Clark. Doubleday, Doran and Company.
Prince Jan. Mrs. F. Hooker. Doubleday, Doran and Company.
Puritan Twins. L. F. Perkins. Houghton Mifflin Company.
Sinopah. J. W. Schultz. Houghton Mifflin Company.
Squirrels and Other Fur-Bearers. John Burroughs. Houghton Mifflin Company.
Stories the Iroquois Tell their Children. Mabel Powers. American Book Company.
Story Lady's Book. G. Faulkner. Small, Maynard & Company.
Swiss Twins. L. F. Perkins. Houghton Mifflin Company.
The Dog, the Brownie, and the Bramble Patch. M. Baker. Duffield & Company.
The Princess and the Goblin. G. Macdonald. J. B. Lippincott Company.
Wonderful Adventures of Nils. Selma Lagerlöf. Doubleday, Doran and Company.

Section XIII. Summary

This chapter began by defining and giving the relation of this kind of reading to other types of reading. Important objectives are to create and stimulate in the pupils a permanent interest in reading and a provision for the wholesome use of leisure time. This type of reading is a type of extensive silent reading for the purpose of assimilating facts in order to satisfy curiosity and interest in

a subject or to take part in a discussion. The materials of assimilative and recreational reading consist of good books adapted to individual needs and interests. They must cover a wide field and be as varied as the interests of the children, including picture books, Mother Goose, animal stories, adventure, fairy tales, poetry, nature stories, community life and stories of industry and of people from other lands. The values resulting from assimilative and recreational reading are: a broadening of experience which enlarges the child's outlook on life and cultivates a taste for wide and wholesome reading; a cultivation of a wider variety of interests in reading; and a beginning of the formation of desirable reading habits and attitudes.

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CHAPTER XII

SEAT WORK RELATED TO READING

Outline

I. Picturing nouns or phrases
II. Matching pictures and sentences
III. Illustrating parts of stories
IV. Collecting known words
V. Illustrating riddles
VI. Directions for making pictures
VII. Yes and No statements
VIII. Drawing pictures with circles in them
IX. Coloring figures from directions
X. Revolving-circle device
XI. Filling the barn
XII. Mixed couplets
XIII. Picturing foods of different animals
XIV. Illustrating booklets
XV. Building stories
XVI. Searching for illustrations
XVII. Classification seat work
XVIII. Matching beginnings and endings of sentences
XIX. What they do
XX. Crossing-out game
XXI. Coloring squares to match words
XXII. Adding words to lists
XXIII. Finding words in words
XXIV. A health game
XXV. The bus picture

Seat-work exercises, as well as any other type of study, should be of a purposeful nature. Although each of the suggestions below provides the child with some aim for doing the work, we cannot be assured that this aim will be sufficient to arouse within him a strong desire to par-

ticipate in the new activity. Hence it is recommended that children's interest in doing each different type of seat work be furthered by introducing a contest, a competition, or some game element which will afford an additional urge for doing the work. One way of thus motivating seat work is to let children work through an entire series of seat-work material of some kind with the goal in mind of seeing who can first finish the series and have each exercise in it correctly done. The one who wins should receive a clap from the class or be recognized in some other way. Another method of introducing the competitive element is that of dividing the group (using the seat-work material at any one time) into two competing sections and giving a score of 1 to each pupil who does the work correctly. The scores for each side are totaled at the end of the period to see which side won. Pupils will enjoy having the division made at times upon such bases as these: girls against boys, blue-eyed children against brown-eyed children, or children with black shoes against children with brown shoes.

Section I. Picturing Nouns or Phrases

Preparation

Fold several pieces of heavy paper into sixteen squares each, and write or print in each square some noun or phrase taken from the reading vocabulary. Each paper should be different from the others, so that the material may be used for several periods, each child receiving a different one each time.

Use

Each child is provided with one of these papers, and proceeds to draw the picture for each square and lay it

a kite	a boy	a girl	a house
a cow	a dog	a ball	a baby
a tree	an apple	a drum	a doll
a sheep	a horse	a bear	a horn

on the appropriate word or phrase. By drawing the pictures upon other squares of paper and laying them on these words rather than drawing directly on the paper itself, the foundation may be preserved for use again and again.

Section II. Matching Pictures and Sentences

Preparation

Cut several attractive little pictures from magazines, catalogues, old readers, and the like (in many cases the cutting can be done by the children themselves). Then prepare a sentence describing each picture, and place ten or fifteen of the pictures with their accompanying sentences in each of several envelopes.

Illustration

An illustration of sentences used in describing such pictures is given below:

A doll in bed.
A boy on a horse.
A girl drinking milk.

Use

On receiving one of the envelopes the child places the pictures on his desk and tries to find the appropriate sentence to place under each picture.

Section III. Illustrating Parts of Stories

Preparation

Cut stories from old readers, or mimeograph, hectograph, or type stories from the class readers, and paste them on heavy paper. Then cut from these stories sections which can be illustrated and place them in envelopes, in every case placing parts taken from the same story in one envelope.

Illustration

An old woman found a sixpence.
The old woman met a pig.
The old woman met a butcher.
The old woman met an ox.
It was a big brown ox.

Use

The children make a picture with colored crayons to illustrate each statement, arranging the pictures on their desks with the corresponding statement under each picture.

Section IV. Collecting Known Words

Preparation

Cut from newspapers several advertisements printed in large bold type.

Use

Each child is provided with three or four such advertisements, and told that he may cut from them all the words which he knows. The words may be arranged on the top of his desk or pasted on a piece of paper. The goal may be that of seeing who can collect and read the longest list.

Section V. Illustrating Riddles

Preparation

Make up three times as many riddles as there are pupils to whom you wish to provide seat work. Place three of these riddles upon each of several different pieces of paper, thus making a set of riddle seat work.

Illustration

I am made of wood.
I have four legs.
I am brown.
You find me in people's houses.
They sit on me.
What am I?

Use

Each child reads the riddles on his card and draws with colored crayons the pictures which represent the answers to the riddles. For example, the child who received the riddle above would draw a picture of a chair.

Section VI. Directions for Making Pictures

Preparation

Prepare several different sets of directions for making pictures. Use the children's reading vocabulary and make the directions of a degree of difficulty adapted to the capacities of the grade in which they are to be used.

Illustration

Make a blue sky.
Leave the ground white.
Make a big yellow sun in the sky.
Make two pine trees.
Color the tops green.
Color the trunks brown.
Make two little brown rabbits under the trees.

Use

Each child reads the card he receives and draws the picture in accordance with the directions.

Section VII. Yes and No Statements

Preparation

Prepare different sets of statements, of which some are true and some are not. Each set of statements is written or printed upon heavy paper, and a square is cut out of the paper at the end of each sentence as illustrated below. Paste an envelope on the back of each card, and in the envelope place several small cards, of which some have Yes on them and others have No on them.

Illustration

Apples grow in the ground. ☐
Boys like to play. ☐
Horses eat hay. ☐
Frogs have tails. ☐
Cats catch mice. ☐

Use

After receiving his card each child takes his little Yes and No cards out of the envelope, reads each sentence on the card, and places either Yes or No under the space at the end of each sentence, according to whether the sentence is true or false. When the children can write, the envelope on the back may be dispensed with and the children may write their Yes and No answers on a strip of paper which they slip under the squares in such a way that the answers will come in the right place. In the second and third grade, of course, the sentences may be written on the board, and the children be asked to copy them and write Yes or No after each statement.

Section VIII. Drawing Pictures with Circles in Them

Preparation

Procure as many small circles as there are pupils to be supplied.

Illustration

Below is a list of things which are based upon the circle form or have circles in them.

balloon	automobile	wheels
orange	bicycle	
cookie	wagon	
plate	engine	

Use

The teacher tells the children that she is going to give each of them a circle to use in drawing or coloring several different things which are either in the form of circles themselves or have circles in them. She then writes a list

of such things on the board, telling the children that after they have made the things listed they may make as many other things having circles in them as they can think of.

Section IX. Coloring Figures from Directions

Preparation

Prepare patterns for use in making a border around the room, decorations to pin on the curtains or for a Christmas tree, class posters, and so on. Then write on the board a set of directions for coloring each of the figures.

Illustration

Color the girl's dress blue.
Color her hair brown.
Color her shoes and stockings black.

Color the boy's suit blue.
Color his shoes and stockings brown.
Color his hair yellow.

Use

Each child chooses the figure he wishes to make and follows the set of directions which tells him how to color it.

Section X. Revolving-Circle Device

Preparation

Cut two circles from cardboard, one three inches in diameter and the other four inches in diameter. Place the small one on top of the large one and fasten the two together with an ordinary fastener in such a way that the top disk can be turned around. Print a letter, such as *h*, on the edge of the smaller disk. Print several small words or combinations of letters round the edge of the larger disk in such a way that when the letter on the edge of

the smaller disk is turned around to any one of them it will constitute the initial letter needed in making a complete word.

Illustration

If the letter *h* is placed on the top disk, and the words and combinations *and, at, ill, ole, ook, ouse, all* are printed round the edge of the lower disk, the following words may be made by turning the top disk around: *hand, hat, hill, hole, hook, house, hall.*

Use

On receiving his circle each pupil turns the disk round in order, making the different complete words, and then drawing them as a proof that he has read them correctly.

Section XI. Filling the Barn

Preparation

When the children are having a farm project they enjoy "filling a barn" with all the things which might be contained in a barn. The teacher prepares for this exercise by drawing the framework of a barn on the board and writing in different places in the barn the names of various animals, grains, vegetables, etc.

Illustration

Such words as the following may be written in the barn: horse, cow, sheep, pig, wheat, corn, hay, potatoes, etc.

Use

The children copy the drawing of the barn on their papers, and represent the words in the teacher's barn by placing colored drawings of the objects in their barns.

Section XII. Mixed Couplets

Preparation

Select several couplets from rimes with which children are familiar. Then change some of the rimes by placing a line from each of two different couplets together. Then copy three of four of the original couplets and three or four of the disarranged couplets upon a heavy piece of paper and cut a square out at the end of every rime. Enough of these cards should be prepared so that every child may have a different set of exercises.

Illustration

Old Mother Hubbard
She lost her sheep. ☐

Little Bopeep
She went to the cupboard. ☐

Hey, diddle, diddle,
The cat and the fiddle. ☐

The queen of hearts
She made some tarts. ☐

Use

Each child reads each couplet on his card, decides whether or not it is right, and records his response by writing Yes or No on a strip of paper which he slips under the edge of the card in such a way that the Yes or No shows through the little square at the end of each couplet.

Section XIII. Picturing Foods of Different Animals

Preparation

Write on the board a list of unfinished statements which call for the names of food eaten by different animals mentioned in the children's reading lessons.

Illustration

A dog eats _____
A cat eats _____
A pig eats _____
A rabbit eats _____
A horse eats _____
A squirrel eats _____

Use

Children in the first grade draw lists of appropriate foods in the right order. In the second or third grades the children copy the statements, drawing suitable foods after each statement and placing the corresponding name under each drawing.

Section XIV. Illustrating Booklets

In the first grade the children's experience stories may be mimeographed and bound, one by one, into individual booklets for them, leaving a blank page opposite each story for an illustration. Throughout the primary grades the pupils enjoy making booklets in connection with their topics of study, such as booklets of birds, farm animals, Indians, "our city," and so on. Letting the children make suitable illustrations for such books is an excellent type of seat work.

Section XV. Building Stories

Preparation

Cut pictures from an old primer and mount each upon a piece of cardboard. Paste an envelope on the back of each of these pieces of cardboard with the flap side out. Then cut the story which accompanied each picture into phrases and place these in the envelopes on the back of the appropriate pictures.

Use

After each child is provided with a set of the material, he lays the picture on his desk and tries to build the complete story concerning it.

Section XVI. Searching for Illustrations

Preparation

Collect enough old magazines or catalogues so that each child may be supplied with one. Then write on the board a list of phrases, consisting of words within the children's reading vocabulary, which represent pictures that may be found in the materials with which the children are supplied.

Illustration

a little girl
some bread
a brown chair
a pretty house
a little dog
a black hat
a big automobile

Use

Each child searches through his magazine or catalogue for pictures to illustrate the phrases on the board. When he finds one he cuts it out, and eventually arranges all his pictures in the order in which their names appear in the list. In the second and third grades the children may paste their pictures on drawing paper, writing the appropriate phrase under each.

Section XVII. Classification Seat Work

Preparation

Hectograph several sheets containing the names of different classes of things that pupils can find in their readers. The sheets should be arranged according to the illustration below.

Illustration

people	John	girl	mother	baby	
animals	cat	horse	bear	kitten	
furniture	chair	piano			
fruit	apple	cherry	orange		
flowers	rose	violet			

Use

The sheets are passed out to the children, and they search through a story or a certain section of their readers to see how many different words belonging to each class they can find and place in their appropriate class. In the second and third grades the children may prepare their own record sheets as a part of the seat-work exercise.

Section XVIII. Matching Beginnings and Endings of Sentences

Preparation

Prepare a series of sentences each of which has a distinctive ending of its own. Then cut each sentence into two pieces as illustrated below. Place the dissected sentences in envelopes, eight or ten sentences in each envelope. In the second and third grades, instead of placing sen-

tences in envelopes, each set may be written on the board as the teacher wishes to use it.

Illustration

The horse	pulls heavy loads
The cat	catches mice
The cow	gives milk
The bee	makes honey
The sheep	gives us wool
The hen	gives us eggs
The goose	gives us feathers

Use

The children place the dissected sentences on their desks and arrange them in the right order, or if the blackboard is used they copy the sentences from the board and arrange them as they think they should read.

Section XIX. What they Do

Preparation

The teacher writes on the board names of helpers in the community.

Illustration

The farmer milks the cow plants the corn	The fireman
The postman	The iceman

Use

The children are to write below each name as many things that the helper does as they can remember. For a change they may draw one thing that the helper does.

Section XX. Crossing-Out Game

Preparation

The teacher writes a list of common words on the blackboard in groups of three or four, each group having a number.

Illustration

1	2	3	4
milk	cat	home	fun
bread	dog	~~school~~	jump
~~tree~~	~~book~~	mother	~~milk~~

Use

The children are given paper on which they write the numbers of the groups of words, and below each number the word that does not belong in the list.

Section XXI. Coloring Squares to Match Words

Preparation

The teacher prepares mimeographed sheets having words meaning color, each word being followed by a square.

Illustration

1. purple ☐
2. yellow ☐
3. black ☐
4. white ☐
5. brown ☐
6. blue ☐
7. red ☐
8. green ☐

Use

The children are to color each square the color indicated by the word.

Section XXII. Adding Words to Lists

Preparation

The children are given sheets of ruled paper on which they are to number the lines from 1 to 6. The teacher writes these numbers on the blackboard, with several words of the same kind after each number; then at the end of the list or on some other part of the blackboard, she writes, out of order, six words to be added to the six lists.

Illustration

1. weeks, months
2. summer, winter, spring
3. dining room, kitchen
4. dimes, cents
5. chickens, ducks
6. umbrella, raincoat

rubbers	**bedroom**
geese	**fall**
nickels	**days**

Use

The children are to add one more word of the same kind to each of the lists. They are to write opposite the numbers the words from the second list.

Section XXIII. Finding Words in Words

Preparation

The teacher mimeographs or writes on the blackboard a list of words.

Illustration

1. boiling (2)
2. shorten (3)
3. cornfield (2)

1. *boil, oil*

4. winter (2)
5. tonight (2)
6. welcome (2)
7. woodman (2)
8. frighten (3)
9. wagon (2)
10. breakfast (2)

Use

The children are to write the small words contained in each of the larger words. The number after each word tells how many little words to look for.

Section XXIV. A Health Game

Preparation

The teacher writes on the blackboard the beginning of sentences relating to health habits. On another part of the board she writes, out of order, the remainder of each sentence.

Illustration

1. I chew	*a.* more than once a week.
2. I play out of doors	*b.* my food slowly.
3. I drink no	*c.* a part of every day.
4. I brush my teeth	*d.* ten hours or more every night.
5. I take a full bath	*e.* every morning and evening.
6. I sleep	*f.* four glasses of water each day.
7. I drink at least	*g.* between meals.
8. I do not eat	*h.* tea or coffee.

Use

The teacher gives the following directions:

Number the lines on your paper from 1 to 8. Find the numbers and letters that go together. After each number write the letter of the phrase which completes the sentence.

Section XXV. The Bus Picture

Preparation

The teacher writes the following on the blackboard:

The Bus Ride

Draw a bus.
Make it green.
Draw the stairs.
Draw some people on top of the bus.
Draw the conductor.
Draw yourself on the bus.
Put X where you are.
Draw five things you saw on the bus ride.

Use

The children follow the directions and draw a picture illustrating a bus ride.

TESTING AND REMEDIAL WORK

CHAPTER XIII

INFORMAL READING TESTS

Outline

I. Advantages of informal tests
II. Suggestions for preparing, giving, and scoring informal tests
  A. Informal inventory tests for entering first-grade pupils
    1. Interview tests
    2. Matching tests
    3. Testing word-recognition
  B. Informal primary-reading tests
    1. Testing ability to analyze sentences
    2. Testing vocabulary-recognition
    3. Testing oral-reading ability
    4. Testing silent-reading ability
  C. Informal tests for the second and third grades
    1. Testing ability in comprehension and speed
    2. Testing ability to select details
    3. Testing ability to supply meanings in a completion exercise
    4. Testing ability to grasp similar meanings
    5. Testing completeness of comprehension and remembrance of a series of ideas
    6. Testing ability to grasp sequence of an entire story
    7. Testing ability to grasp relevant ideas
    8. Testing accuracy of perception
    9. Testing span of recognition
    10. Checking habits of pointing, lip-movement, and vocalization
III. Graphing results
  A. The block method
  B. The bar method
IV. Summary

Informal tests are tests prepared by the teacher or supervisor. They are based upon regular classroom materials and often make use of normal teaching procedures. They differ from formal tests in that they are not so

carefully prepared as to vocabulary and gradation of difficulty and are not scientifically standardized as to reliability, validity, and grade or age norms. Informal tests are nothing more or less than simple "homemade" examinations which any teacher may prepare and administer in connection with her daily teaching problems. They should not replace standardized tests by any means, but should rather be used to supplement the more formal tests. Used in this capacity, they constitute one of the most important phases of the teacher's work in putting into effect an improved program of instruction in reading. Their significance is well summed up by Dean Gray:

> Evidence goes to show that frequent informal tests are just as essential as books, blackboards, supplemental reading material, etc. They supply the teacher with the facts which are necessary in a scientific organization of her work from day to day.[1]

The aim of this chapter is to describe some of the advantages of informal tests and to offer some concrete suggestions for preparing, giving, and scoring such tests.

Section I. Advantages of Informal Tests

1. Informal tests may be given in connection with any aspect of reading that the teacher wishes to test. Standardized tests do not cover all phases of instruction in reading, whereas informal tests may be prepared upon very short notice to check any aspect of reading, thus enabling the teacher to test a wide range of reading abilities.

2. Informal tests utilize the same types of material as those with which the children are working and often the same procedure as is used in their regular lessons.

[1] W. S. Gray, "Value of Informal Tests of Reading Accomplishment," *Journal of Educational Research* (February, 1920), Vol. I, p. 103.

3. Informal tests may be given at frequent intervals, thus affording checks of growth as the term progresses. Standardized tests often are limited to one form and hence can be used only at the beginning or end of the term, whereas informal tests may be given as often as the teacher wishes to check the growth of her pupils.

4. Informal tests are useful in diagnostic work. The child who is having special difficulty may be given several informal tests, covering a wide range of special abilities, as a means of more definitely determining his special weaknesses.

5. Informal tests are useful in organizing groups for special types of training. Such tests may reveal weaknesses in some phase of reading not covered by formal tests. The data thus obtained will enable the teacher to meet the specific needs of her pupils better by organizing them into flexible groups and giving training according to such needs.

6. Informal tests of comprehension are economical methods of procedure in regular lessons because they make it possible to secure comprehension from every pupil in the class upon all the important points of any one lesson. Oral questions do not guarantee such universal participation.

7. Informal tests enable the teacher to supply individual interests and tastes better. Not all children care to read the same thing. If the teacher has at hand a number of informal checks or tests, each pupil may read something different from the others and be tested upon the particular thing he reads.

8. Informal tests enable the teacher to judge of the difficulty of her assignments both in regard to responses expected and in regard to materials used. Frequent checks from the class as a whole furnish her with such

knowledge as will aid her in determining whether her assignments are too easy to be of value, or so hard as to be "above the children's heads," or about right for insuring a normal amount of growth.

9. Informal tests are inexpensive. Expense would be a very important item if one were to pay for all the tests which it is desirable to give throughout the term. There is no obstacle in giving informal tests.

10. The use of informal tests develops a spirit of investigation in the teacher. By frequently checking her teaching and accurately recording results, she is bound to become more scientific-minded and to develop habits of seeking facts as a basis for varying her instructional activities, rather than depending upon opinion or tradition as teaching guides.

Section II. Suggestions for Preparing, Giving, and Scoring Informal Tests

The number of different kinds of informal tests that may be given is almost unlimited. No attempt is made to present an exhaustive list here. Many of the suggestions found in Chapters III, IV, and XII may also be used in the capacity of informal tests. The outstanding purpose in giving the suggestions below is to present a wide enough sampling of informal tests to show that many different phases of reading may be checked in this way. It cannot be too strongly emphasized that the descriptions of materials and procedures given here are only *suggestive*. They are not to be used outright, but rather as illustrations which may offer a few ideas to teachers for doing constructive work of their own in preparing informal tests for use in connection with their particular problems.

A. Informal Inventory Tests for Entering First-Grade Pupils

Children entering the first grade vary widely in their capacities and in their previous experiences and training. It is desirable to ascertain the status of each child as early as possible, so that the class may be divided into homogeneous groups, each of which may be given instruction suited to its particular needs. Such a classification may be made on the basis of three lines of procedure: (1) giving intelligence tests, (2) securing information in regard to each child's parentage, home, health, and traits of character, and (3) securing information in regard to his attitude toward reading and experience in reading. It is in connection with this third procedure that informal tests are most helpful. A few suggestions for such "stock-taking" tests are given below.

Interview tests. Some information in regard to the child's attitude toward reading and his previous experience with it may be obtained through individual interviews in which questions similar to these are asked:

1. Do you have books at home?
2. What books have you?
3. Do you look at them often?
4. Does anyone read to you at home?
5. Who reads to you?
6. Do you ever try to read the books yourself?
7. Can you read a little?
8. Do you know any stories well enough to tell? What are they?
9. Do you know any rimes? (Illustrate a few, such as reciting "The Old Woman who lived in a Shoe.") What are they?
10. What should you like to do in the first grade? (If the child does not mention reading, ask question 11.)
11. Should you like to learn to read?

A convenient way of recording these data is to use one large sheet and to write the questions in the left-hand column and the children's names at the top of successive right-hand columns, as illustrated below. In questions such as 2, 8, and 9 it will be necessary to write the data themselves in the appropriate spaces. In cases in which the answer is Yes or No, a check (√) may be made in the appropriate space for Yes, and No may be recorded by making a dash (—).

SUGGESTIVE RECORD FORM

Teacher _____ Grade _____ School _____

Questions	Tom	Mary	John	Louise	Anna	Frank	Sam
1. Do you have books at home?							
2. What books have you?							
3. Do you look at them often?							
4. Does anyone read to you?							

Matching tests. Investigation has shown that there is a high correlation between matching ability and reading success in the first grade.[1] This being the case, some check on ability in matching should aid the teacher considerably in determining her pupils' reading readiness. The suggestions below cover different phases of matching experiences.

Matching rimes. Print two copies of each of two rimes on separate pieces of cardboard. Short rimes such as these should be used:

[1] Nila B. Smith, "Matching Ability as a Factor in First-Grade Reading," *Journal of Educational Psychology* (November, 1928), Vol. XIX, pp. 560–571.

Humpty Dumpty sat on a wall.
Humpty Dumpty had a great fall.

Little Jack Horner sat in a corner
Eating his Christmas pie.

Lay one copy of each rime on your desk. Call the child to you. Hand him a copy of one of the rimes and ask him if he can find the same rime on your table. Record the response on your record sheet, then give the child the copy of the other rime and ask him to match that, and record the response.

Matching sentences. This test is prepared and conducted in the same way as described for matching rimes, with the exception that the content is concerned with two sentences of similar length but different wording; as,

Rabbits have long ears.
Dogs have sharp teeth.

Cats drink milk.
Cats catch birds.

Matching words. This test is prepared and conducted in the same manner as the tests above, the only difference being that in this case the child matches *words.* Some words should be used that are very distinctive in form, as, *girl* and *horse*; others should be of similar form, as, *cat, cap,* etc.

Matching letters. This test is conducted in the same way as the other matching tests, except that letters are chosen for the matching medium. The order of the matching difficulty of letters has been definitely determined by investigation with first-grade children. The following list shows this order of difficulty, beginning with the letters which are the easiest to match and proceeding to those which are the most difficult: *b, p, q, d, r, h, f, i, j, n, u, e,*

v, x, y, k, t, z, l, a, c, w, o, m, s, g. Equipped with this information the teacher will do well to select for her test a few letters that are easy to match, a few that are hard to match, and a few that are of medium difficulty. Some such choice as the following is suggested:

m	*e*	*b*
s	*v*	*p*
g	*x*	*q*

A score sheet for use in these matching tests may be prepared in the same way as was suggested for the interview test, except that the different types of matching activities and materials are placed in the left-hand column.

Testing word-recognition. *Environment words.* Select a series of such words as the children might have come in contact with in their homes or on the street; for example, *mail, hot, cold, go, stop, grocery, bakery, sugar, flour,* etc. Print each of these words on a separate card. Prepare a record sheet similar to that suggested for the matching tests, placing the words in the left-hand column and writing the children's names across the top of the sheet. In giving the test lay the cards and the record sheet on your desk. Call the children to you one at a time and say to them: "Here are some words which you may have seen at home or upon signs. See if you can tell me what some of them are." Expose the cards to the child one at a time, recording his responses with appropriate checks on your record sheets.

Early reading words. The same procedure should be used in preparing and giving this test as was described for environment words, except that in this case the content of the test should be drawn from the first primer lessons, covering such words as *mother, ball, dog, run, cry, eat, will, the, can.*

B. Informal Primary-Reading Tests

After the children have had some instruction in reading the teacher should proceed as follows: (1) give informal tests to see in which phases of reading the children are making good progress and in which phases they are weak; (2) place emphasis upon the weaker phases and test at frequent intervals to see whether or not growth is taking place; (3) vary the procedure according to the results revealed. Several suggestions are given in the following pages for informal tests to use in carrying out such a program. Although these suggestions are organized under two headings, — those for the first grade and those for the second and third grades, — there is no sharp line of demarcation, some of the tests being equally suitable for each of the first three grades.

Testing ability to analyze sentences. Every first-grade teacher knows that children frequently are able to recognize an entire sentence without being able to recognize the separate words or phrases within it. An informal test to aid in determining which children need more assistance in making such analyses is as follows: The teacher selects three or four sentences which the children have had in their previous reading. The sentences are printed on a sufficient number of sheets of paper so that each child may be provided with a copy. They may be typewritten on a typewriter having large-sized type, or they may be mimeographed or hectographed or printed by hand. The sheets are passed out to the children, and they are directed to draw a line under each phrase or word named. It will be necessary to give them an idea of the procedure through the use of a blackboard practice exercise in which the teacher places three sentences on the board and marks the words and phrases herself in the first sentence as she

names them, and calls upon different pupils to underline words and sentences in the second and third sentences as she names them.

An example of an informal test to use for this purpose is as follows:

The *little old woman* had a *cat.*
You *can* not *run away from me.*
The girl saw a *big* doll and *little dolls.*
One, two, *I will get* them out *for you.*

In this case the teacher said: "Put your marker under the first sentence. Draw a line under the part that says 'little old woman.' Draw a line under the part that says 'cat.' Move your marker down under the next line. Draw a line under the part that says 'can.'" And so on. If you plan to have ten responses made, the tests may be easily scored on the 10 per cent basis, allowing 10 for each correct response.

Testing vocabulary-recognition. *Individual oral test.* An accurate means of obtaining a check on children's reading vocabulary at any time is that of preparing a list embracing all words covered up to date and calling each child to you individually and asking him to read these words. In conducting such a test the child's list should be placed before him and the teacher should have her class-record sheet before her. The response for each word is recorded by means of an appropriate symbol. The same form of record sheet may be used for this purpose as was recommended in connection with tests previously described.

Group crossing-out test. This test is much more economical to give than the individual oral test, for the reason that it can be administered to the entire class at one time. It will not furnish the teacher with information as to just what words the children do not know, but it will furnish

a fairly good check as to different degrees of general ability in vocabulary-recognition. In preparing this test the teacher lists the vocabulary which the children have covered. She then selects every tenth word (or every word at some other regular interval). Let us suppose that the words resulting from this procedure are *like, cake, give, sheep, come, girl, pig, baby, and, red.* Each of these words is then placed in a group with two other words which the children have not had. One of the two new words in each group should be similar to the one that the children are supposed to know (see illustration below). Enough of these lists are prepared so that each child is provided with one. After passing them out the teacher names the old word in each group and asks the children to cross it out. It will be necessary to precede the test with a preliminary exercise on the blackboard in which pupils have practice in crossing words out of similar lists so that they will be acquainted with the procedure to use. The illustration shows the method of arranging groups and the method of crossing out words:

sing	cape	gave	~~come~~	black
~~like~~	read	~~give~~	dear	sleep
live	~~cake~~	play	cave	~~sheep~~
door	pin	from	~~and~~	but
~~girl~~	~~pig~~	ball	ant	rat
gave	fly	~~baby~~	ran	~~red~~

If this test is arranged in ten groups of words, it also may be easily scored on the percentage basis.

Testing oral-reading ability. Oral reading must necessarily be tested by the individual method. If the teacher proceeds as follows she may obtain a check on both the rate and the accuracy of her pupils' oral reading without having them suspect that they are being tested. In giving

this test she places on her desk her own copy of the reader from which the children are reading, and a watch that shows the seconds. She then calls on one child after another to read a paragraph, each reading a new paragraph. As a child reads she notes the exact second at which the first word is read; and when sixty seconds have elapsed she places a check under the word last read, although the child proceeds with his reading without interruption. As he reads she also marks his outstanding errors by placing in each case some code mark above the word on which the error was made, using, for example, *r* for repetition, *m* for mispronunciation, and *u* for unrecognition. When the child has finished reading, his name is written in the margin of the teacher's book opposite the paragraph he read. After school the teacher may record the data for each individual on a record sheet prepared for that purpose. She then erases the marks in her book, which should have been made very faintly to permit of such erasure.

Testing silent-reading ability. *Testing ability to grasp the meaning of phrases.* Children's ability to grasp the meaning of phrases may be informally checked by this method: The teacher prepares a set of cards with phrases representing pictures in the part of the book which the children have covered, such as *a little girl, a red horn, a yellow ball, some books,* etc. The phrases should be printed in large black letters which may easily be seen by all members of the class. In conducting the test the teacher has the children turn to a certain illustration in her book which contains pictures of the phrases on the cards. She then asks them to point to the picture of each phrase as she flashes it. By carefully observing the children's responses she can detect which ones are grasping the meaning of the phrases and which ones are not.

Testing ability to get meanings from context of sentences. In preparing for this test the teacher makes up a list of sentences, omitting in each case some noun which can easily be guessed if the child understands the thought of the sentence; for example,

Rabbits have long _____.
I wash my face and _____.
At night we go to _____.
The three bears lived in the _____.
I can see with my _____.

A sufficient number of copies of this set of sentences is prepared so that each child may be supplied with a copy. Pupils are instructed to draw a picture of the word needed to complete the sentence in each case. If desired, scores may be given on a percentage basis.

Testing ability to follow directions. Children's ability to follow directions may be roughly tested by placing on the blackboard four different sets of directions for drawing objects. Each set of directions should be of about equal difficulty, and all should cover words with which the children are familiar. For example:

1. Draw a tree.
   Color the tree green.
2. Draw a ball.
   Color the ball red.
3. Draw a bird.
   Color the bird blue.
4. Draw a house.
   Color the house brown.

Assign different exercises to different children so as to avoid danger of copying, then instruct each child to do what his directions tell him to do. The drawings resulting from the exercises will furnish a check of pupils' ability to follow directions.

Testing ability to get the meaning and sequence of an entire selection. In preparing for this test the teacher mimeographs, types, or prints by hand several copies of

a short complete story which the children have read. She then provides each pupil with a copy of the story and has him cut the sentences apart and shuffle them. The children are then instructed to build up the story again. The placing of the sentences in the right order is an indication of ability to get meanings and to follow sequence.

Testing ability to grasp related meanings. 1. *Questions and answers.* Children's ability to grasp related meanings may be tested by having them find the right answer to printed questions. In preparing for this test the teacher makes up a set of questions based upon some story which the pupils have read, and opposite the questions she places the answers in *mixed arrangement.* All pupils are provided with copies and are instructed to draw a line from each question to its right answer. An illustration is given below:

What did the gingerbread boy do?	**A pony.**
Where did the three goats go?	**A balloon.**
What did Jack want for Christmas?	**He ran away.**
What did Mary buy of the toyman?	**To the hillside.**

As in previous tests it will be necessary to have a preliminary blackboard exercise in order to familiarize the children with the procedure before passing out the papers.

2. *Crossing out unrelated words.* Another method of testing ability to grasp related meanings is as follows: Prepare lists of words of the same kind, including in each list one word which does not belong to that class. Provide all the children with a copy and instruct them to cross out in each case the word which does not belong in the list. This test should be preceded by the usual practice exercise. An illustration of such lists follows:

Toys	Animals	Clothes
horn	cat	hat
sled	dog	dress
balloon	horse	apple
cake	rabbit	shoes
ball	bird	coat

Testing ability to get the thought of a story. Some of the ways in which the teacher may test first-grade children's ability to get the thought of a story are

By having them reproduce the content orally.

By asking them questions after they have read the story.

By asking them to find out something the story tells and come and whisper it to her as soon as they know.

By letting them dramatize the story or parts of it.

By flashing questions printed on cardboard and letting the children find the part in the book that answers each question, and read the part orally.

Testing ability to keep the place. 1. *Oral response.* The teacher reads a story to the class, and they follow the lines with their eyes. Occasionally she pauses and asks the children to supply the next word. By observing the group carefully it is possible in this way to get a check on those who are not ready to supply the word in each case.

2. *Marked response.* The children are provided with mimeographed, hectographed, or printed copies of an excerpt from a story (the print and spacing should be the same as that in the reader). They are then instructed to follow the lines carefully while the teacher reads and, in each case, to draw a line under the word which she stops on as she pauses during the reading. The teacher marks her own copy and uses it as a key in scoring the pupils' work.

Testing a combination of abilities. This "combination test" was described in a bulletin published by the State Department of Education, Montgomery, Alabama.[1] Several different reading abilities are tested in this one test. The following description is quoted directly from the bulletin.

To make the test. Use three pieces of cardboard. Cut passages from the primer and paste on the cardboard as follows:

The fox said,
"Do not cry, little boy.
I can make the goat go home."

The fox ran into the woods.
He ran after the goat.
The goat would not go home.
Then the fox began to cry.

will	hen	pancake
you	pig	can
ran	some	run
he	she	do
away	trip	not
little	dog	eat
said	stop	then
won't	old	boy
goat		

Once there was a little boy.
The boy's home was by a bridge.

There was grass on the hillside.
The billy goats wanted the grass.

[1] General Bulletin to the County School Supervisors, November, 1923.

To give the test. 1. Secure a desirable attitude on the part of the pupils by telling them you want to see how well they can read. Avoid letting the teacher announce what she is going to do lest her nervousness show in her voice. Only one can read at a time, so select a place at a distance from the others on a front seat. Choose first a pupil who seems least diffident, remarking, "After Mary has read to me, John may come."

2. Showing Card 1 to the pupil, say: "Read this much for me" (indicating the first three lines). "That's good" (no matter how he does). "Now see if you can find the words which say 'into the woods' down here" (indicating the last four lines with a circular motion). "Now find where it says 'go home.' Find the line that says 'He ran after the goat.' Find the line that says 'Then the fox began to cry.'"

3. Showing Card 2 to the pupil, say: "Let us see if you know any of these words. What is this word?" (pointing to the first word). (Count errors on the fingers while the child reads the list orally.)

4. Showing Card 3, say: "Read these two lines to yourself and see if you can find out where the boy's home was. Read these two lines to yourself and see if you can tell what the goats wanted."

To score the test:

Card 1

1. Each word mispronounced in oral reading, 1 off . . .	15
2. Stopping to spell out words in oral reading, 5 off . . .	5
3. Pointing in oral reading, 5 off	5
4. Decided word-by-word reading, 5 off	5
5. Phrase-recognition, 5 each	10
6. Sentence-recognition, 5 each	10

Card 2

1. Each word counts 1	25

Card 3

1. Right answer: *by the bridge* or *by a bridge*	10
All else wrong	
2. Right answer: *grass* or *the grass*	10
All else wrong	
3. Moving of lips while reading to find answer, 5 off . .	5
	100

Record on slips of paper as follows:

Oak Grove School								
Pupil	Oral	Spell	Point	Call	Phrase or Sentence	Vocabulary	Questions	Score
R.H.	3	—	1	1	2	12	1	35

Interpretation of preceding record:

R. H. missed three words in oral reading
did not spell out any words
did some pointing
read word by word
failed to find two phrases or sentences
missed twelve words in vocabulary
failed to answer one question

C. Informal Tests for the Second and Third Grades

A large number of the tests suggested for the first grade are also suitable for the second and third grades, provided that material is utilized which is adapted to the advanced capacities of the older children. The teacher of these grades should consider the tests described for the first grade as well as the following ones, which are suggested especially for use in these grades.

Testing ability in comprehension and speed. *Method No. 1.* The teacher writes on the board a set of questions based upon some story the children have not read. The questions should be of such a nature that they can be answered by Yes or No, and should at the same time be sufficiently fundamental to test the children's real comprehension. The following questions are given as an illustration. They are based upon "The Princess and the Golden Ball."

1. Did the golden ball fall into the river?
2. Did the frog say he would get the ball for the princess?
3. Did the princess say the frog could come into her house?

4. Did the frog ask to come in after he got the ball?

5. Did the princess want to let the frog in?

6 Did her father tell her not to open the door?

7. Did the frog sleep in the princess's bed and eat from her plate?

8. Did Mary find the frog in the house in the morning?

9. Was the frog changed into a little girl?

10. Did the mother come for her lost child?

In giving the test the following procedure is used: The teacher tells the children they are going to have some questions on a new story which can be answered with Yes or No (write both words on the board). Then she writes a question, such as "Did you come to school this morning?" The children answer "Yes," and she writes Yes on the board. This practice is continued until the children have caught the idea. The teacher then says: "Take your paper and pencils and number the lines on the paper 1, 2, 3, and so on through 10." Illustrate on the board if necessary. "Lay your papers aside and get your readers. Find 'The Princess and the Golden Ball' on page 76." Write the page number on the board and help any children who cannot find the place. When everyone is ready, say: "I shall read page 76 aloud. You look on and follow with your eyes. When I stop, you go right on reading to yourself, and every time I say 'Mark' draw a faint line under the word you are reading" illustrate this procedure with a little blackboard practice. Read the first page aloud to the children, then stop and let them go on by themselves. Note the exact second at which you stop. At the end of each minute say "Mark" until most of the children have finished the selection. Have them close their books, take their numbered papers, and write Yes or No on them in response to the blackboard questions.

When the questions are answered, have them number five more lines on their papers and tell them to open their books and copy certain words asked for. The directions in connection with the subject matter mentioned above might be these:

1. Copy the word that tells where the princess went with her ball.
2. Copy the word that tells what the family were doing when the rap came.
3. Copy the word that tells what the princess saw at the door.
4. Copy the word that tells what color the frog was.
5. Copy the word that tells what kind of plate the princess had.

In scoring the results the children in the third grade may count the words themselves, and if they have had short division they may even compute their own averages. In the second grade it is necessary for the teacher to collect the books and count the words herself or enlist the help of some upper-grade pupils. The comprehension tests may be scored on a percentage basis. If a composite score is desired, some such distribution as this may be made:

Questions	10 points
Words	5 points
Speed	5 points

Second-grade children should read 80 or more words per minute, and third-grade children should read 130 or more words per minute.

Method No. 2. Another method of checking comprehension and speed at the same time is as follows: The teacher prepares mimeographed sheets of reading material which are passed out face downward to the children. At a given signal they turn over their papers and begin reading. The teacher says "Mark" at intervals of one minute, and in each case the children draw a circle round the word they are reading when she speaks. After a sufficient amount of time has been allowed for most of them

to cover the material, they turn their papers over and write on the back the answers to questions which the teacher asks on the content of the selection. They may either write statements or Yes and No, according to the way in which the questions are phrased. The scores may

FIRST-GRADE CHILDREN TAKING AN INFORMAL READING TEST
Courtesy of the Milwaukee Public Schools

be obtained by finding the average number of words read by each individual during the total time and by giving a value of 1 or 10 to each comprehension question answered correctly.

It is a good plan to run off at one time four or five sheets for each pupil, each sheet containing a different part of the same story, and to give the test at intervals throughout the term, using a different part of the story for each test. This would insure the use of material of about equal dif-

ficulty for all the tests and would thus furnish a good basis for checking progress.

Testing ability to select details. The teacher formulates a series of questions on the details of a story and copies on the board in a disarranged order the two or three words that will answer each question. The children are instructed to read the story, then to close their books and copy the list of words on the board. When this is done, the teacher dictates (or, in the third grade, writes) certain directions for the pupils to follow in marking the words in a way that will indicate their ability to grasp details. The list of words and directions below are given as an illustration.

Indian	**rubbed it with oil**
soaked it	**a tiny feather**
rabbit skin	**on the porch**
in the garden	**to the hem**
red and green	**green paint**

1. Draw one line under what the doll's dress was made of.

2. Draw one line over what the doll wore in her hair.

3. Draw two lines under the colors which were in the border of her jumper.

4. Draw a circle after the part that tells how far down on her dress her beads reached.

5. Draw three lines under the part that tells where John stretched the skin.

6. Draw two lines over what Betty did to make the skin soft.

7. Put a cross after the part that tells what Betty did to get the hair off.

8. Put a circle after the part that tells where Betty dug the hole to bury it.

9. Put two crosses after the word that tells what kind of girl the doll looked like.

10. Put a dash after the part that tells what Betty used in decorating the dress.

The pupils may exchange papers and score each other's work, or the teacher may collect the papers and do the scoring. A value of 1 may be allowed for each correct answer or, if the percentage basis is desired, the usual value of 10 may be assigned to each correct response.

Testing ability to supply meanings in a completion exercise. The teacher writes a paragraph which sums up a story, and omits certain words, the supplying of which will test the child's comprehension of the story. This paragraph is written on the board and covered with a roller shade or a piece of paper. The children read the story, close their books, copy the teacher's paragraph, and supply the missing words. If ten words are omitted, the papers are easily scored by allowing a value of 1 or 10 for each space correctly filled. The illustration below is based on "Spotty," from the "Bolenius Third Reader," pp. 26–27.[1]

Spotty lived in the _____. His _____ said he might run as far as the big oak tree but not one _____ farther. Spotty ran on and on, playing with the _____. He ran past the _____ and halfway around the tree. Then he heard a _____ and a sharp _____. He quickly _____ a tree but the boys caught him. They took him _____ and made a _____ of him.

Testing ability to grasp similar meanings. The teacher selects a list of words from the reading vocabulary, including several pairs meaning the same. The words are written in lines, as illustrated below. The children copy them and draw a line under the two in each line which mean the same. This test may be scored in the usual way.

A grocery is a **street house store**
A house is a **market room home**
To be frightened is to be **afraid angry hungry**
To be ill is to be **well sick happy**
To seek is to **run ask hunt**

[1] By permission of Houghton Mifflin Company, Publishers.

Testing completeness of comprehension and remembrance of a series of ideas. The teacher prepares a series of questions on a selection, the answers to which require a complete understanding of a series of items. After reading the selection the children may copy the questions from the board and write the answers to them. The questions below are based upon "Why the Robin's Breast is Red."

1. What were the three things that all the animals loved?

2. What two things did the little boy gather to keep the fire burning?

3. What three things did the little boy do when he became too tired to attend to the fire?

4. What three things did the robin do when he saw that the fire was out?

5. What two things did the little boy do when the flame brightened?

Testing ability to grasp sequence of an entire story. Grasp of sequence may be informally tested in several ways, as suggested below:

The children may be called upon to reproduce a story, describing the events in the order of their occurrence.

The children may draw the characters in a story in the order in which they appear.

The teacher may prepare a series of brief paragraphs each of which summarizes some one event in the story. These are written upon the board in a disarranged order. The children read the story and then copy the paragraphs, arranging them in the right sequence.

Testing ability to grasp relevant ideas. The teacher prepares a set of directions each applying to some three or four statements within a series of statements which she has listed. This material may either be written on the board or mimeographed on individual sheets of paper.

The method of carrying out the test is evident in the accompanying illustration.

Write *dog* after each sentence which is true about a dog.
Write *apple* after each sentence which is true about an apple.
Write *horse* after each sentence which is true about a horse.

1. They have sharp teeth.
2. They like to hunt rabbits.
3. They are good to eat.
4. They grow on trees.
5. They live in barns.
6. They draw heavy loads.

Testing accuracy of perception. Several different types of perception may be tested by having the children sort words and arrange them according to specified classifications. In each case the words may be written on the board and the children be directed to copy them and arrange them as instructed, or each child may be supplied with a hectographed or mimeographed sheet which he cuts up, rearranging the words in columns upon his desk or pasting them in the right order on another sheet of paper.

Arranging words according to identity. The material for this test consists of several lists, all containing the same words but arranged in different orders. The children are to make new columns, placing the same words together.

give	put	milk	was	has	horse
put	was	give	milk	horse	put
horse	give	was	has	milk	has
has	milk	has	horse	give	was
milk	horse	horse	put	was	give
was	has	put	give	put	milk

Arranging words according to similarity of parts. In preparation for this test the teacher makes up mixed lists containing several words which begin the same, end the

same, or have the same middle group of letters. The children are directed to put those having similar parts into columns by themselves. In the illustration below pupils are to classify the words according to those which *begin* with the same two letters.

wheat	sting	when	stop
grind	crack	store	grass
story	stood	grain	where
plant	great	whisper	ground
whistle	please	plan	what

Classifying words that mean about the same thing but do not look just alike. In this test emphasis is placed upon meanings. The teacher will have to draw largely from the various forms of the same verbs in preparing lists for this test, using such words as *play, plays, played, playing, playful,* etc. The list might be like the following:

sing	falls	fell
fall	played	playful
think	thought	thinking
sings	fallen	sang
play	thoughtful	playing
sung	singing	thinks

Classifying words that look somewhat alike but have entirely different meanings. In preparing this test the teacher chooses words which begin with the same letter and at first glance look somewhat alike but do not have any related meanings at all; as, *ball, bait, bill, best,* etc. The resulting list will be like this:

went	fat	fist
mice	wind	will
fall	moon	music
more	fit	felt
mean	west	well
wait	mine	fast

Testing span of recognition. Children's ability to group phrases at one glance may be checked either by group testing or by individual testing.

Group test. In conducting the group test the teacher has the pupils provide themselves with paper and well-sharpened pencils. Then she stands in front of them where they all can see plainly, and flashes the phrases one after the other for about half a second each, waiting long enough after each flashing to let the children write what they see. The phrases should be printed on heavy white paper in large black type and should cover words the children have had in previous lessons. Phrases of the same length or of increasing length may be flashed, as desired. The papers may be scored by allowing one point for each word seen.

Individual test. A similar check may be obtained by flashing the cards to each child individually and letting him give an oral response. In this test the teacher might flash the card in each case as many times as necessary for the child to recognize it but not prolong the time for any one flash. The score for any particular phrase would be the number of times that it was flashed. The children having the lowest score would be those who are least in need of attention.

Checking habits of pointing, lip-movement, and vocalization. Pupils may be checked up on pointing, lip-movement, and vocalization by devoting a few minutes of careful observation to this purpose. Prepare a class record sheet before the observation. Assign the children some story to read without telling them anything about your intentions; then carefully observe each pupil while he reads and, in the appropriate space under his name on the record sheet, check each of the habits of which you see evidence. Check again at intervals throughout the term and com-

pare your findings. The record sheet below is recommended for this purpose. You will notice that three columns are provided for each child, so that you may check his habits three times during the term.

Teacher _____ Grade _____ School _____

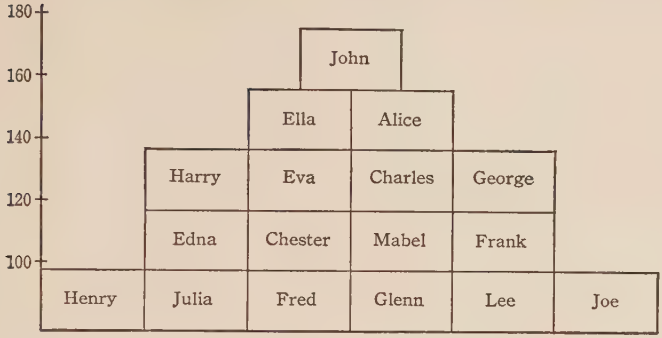
Habits	John M.			Mary B.			Anna D.			Tom L.		
	1st	*2d*	*3d*	*1st*	*2d*	*3d*	*1st*	*2d*	*3d*	*1st*	*2d*	*3d*
Lip-movement												
Vocalization												
Head-movement												
Wandering attention												
Eyestrain												
Etc.												

Section III. Graphing Results

Group or individual graphs add much to the children's interest in their improvement in reading. The results of informal tests given at intervals throughout the term may be presented in such ways that children can actually watch themselves grow. Two such methods are given below.

The block method. A simple means of picturing rate or comprehension scores is by using the block method:

Each child's name is written on a block opposite the score which he has earned, represented in the scale extending up the left side of the figure. In this case rate is represented. A similar graph may also be used for comprehension, letting the figures on the left represent the range of percentage scores earned by the class; as, 30, 40, 50, 60, 70, 80, 90, 100. The children will be greatly



interested in watching their respective blocks move up higher and higher as the result of successive tests.

The bar method. Another common way of graphing results is by the bar method:

Rate	60	80	100	120	140	160	180
John							
Louise							
Tom							
Alice							

In this graph the range of rate or comprehension scores are written across the top of the figure, and each child is allowed to color in the bar as far as his score extends. Children experience great satisfaction in watching their bars grow longer and longer as tests are given at intervals throughout the term.

Section IV. Summary

We discussed the advantages of informal tests, which may be summarized as follows: They provide checks of many different kinds of reading and of normal classroom

materials and procedures; they are useful in diagnostic work, in organizing groups for special training, and in checking lessons economically; they enable the teacher to meet individual tastes better and to judge of the difficulty of her assignments; they are inexpensive; and they develop a spirit of investigation in teachers. Under "Informal Inventory Tests for Entering First-Grade Pupils" we suggested an interview test, matching tests, and tests of word-recognition; under "Informal Primary-Reading Tests" we described analysis tests, vocabulary tests, oral-reading and silent-reading tests, the last-named consisting of testing ability to grasp meanings, to get meaning from context, to follow directions, to follow sequence, to grasp related meanings, to get the thought of a story, to keep the place, and a combination of abilities; under "Informal Tests for the Second and Third Grades" we described tests for comprehension, for ability to select details, to supply meanings, to grasp similar meanings, for remembrance of a series of items, for grasp of the sequence of an entire story, for grasp of related ideas, for accuracy of perception, for the span of recognition, and to detect immature habits of pointing, vocalization, and so on. Lastly we gave suggestions for graphing informal test result.

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CHAPTER XIV

STANDARDIZED READING TESTS

Outline

I. Uses of standardized reading tests
  A. Standardized reading tests used for measuring progress
  B. Reading tests used for classifying pupils
  C. Standardized tests used for diagnosing deficiencies
  D. Reading tests used for comparing methods or materials of instruction
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II. Choice of standardized reading tests
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  D. Measurement of fundamental aspect
  E. Exact and comparable norms
  F. Adaptation to pupils' capacities
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III. Administration of standardized reading tests
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  C. The Detroit Word-Recognition Test
  D. The Detroit Reading Test
  E. The Stanford Achievement Test: Reading Examination
  F. Gates's Team of Group Tests for the Primary Grades
V. Summary

Teachers have always given examinations of their own making, yet it is only recently that educators have come

to realize the full significance of using standardized tests as a means of placing the field of education upon a sound scientific foundation. Medicine is a parallel field which has preceded us by many years in establishing itself on the roster of true sciences. When a doctor wishes to determine the condition of a patient, he counts the pulse in the patient's wrist and reads a thermometer which has been placed under his tongue as a means of obtaining a record of his temperature. In the light of these data, coupled with information regarding other symptoms, the doctor arrives at a conclusion as to what the malady is and prescribes a remedy which has been proved through repeated tests to be effective in curing this particular ailment. Moreover, he visits his patient at frequent intervals, continuing to apply such tests as counting the pulse and taking the temperature as a means of determining the degree of progress the patient is making under his treatment. There is no reason why the processes of training the child's mind should not be conducted as systematically and scientifically as the physician's work.

The greatest obstruction in the pathway of scientific educational progress has been the lack of standardized tests to use as instruments in diagnosing difficulties and measuring progress. As the result of a slow evolutionary movement educators have recently become keenly aware of this need and are meeting it at the present time by producing an ever-increasing supply of scientifically prepared tests for use in all subjects and all grades.

In 1896 Dr. J. M. Rice, who had become dissatisfied with the unreliable results yielded by giving examinations of the individual teacher's own making, conceived the idea of a comparative test to use in measuring the results in several different schools. Eventually Dr. E. L. Thorndike evolved the plan of using a standard scale of different gradations

of difficulty in order to determine the child's stage of development more accurately. Stone's arithmetic tests, which appeared in 1908 and which were worked out under the personal supervision of Dr. Thorndike, represent the transition step between Rice's comparative tests and Thorndike's idea of using a scale unit. In 1909 Thorndike's Handwriting Scale appeared and was immediately followed by other scale tests such as the Hillegas Composition Scale, the Buckingham Spelling Scale, the Woody Fundamentals of Arithmetic Scale, and the Trabue Language Scale. Because of its complex nature reading was one of the last subjects to yield to the testing movement. The first scientifically standardized scale test in reading appeared in 1916 in the form of the Gray Oral Reading Test. Since that time other standardized tests have been devised for the purpose of measuring such phases of reading ability as speed, comprehension, and word-recognition.

It is the purpose of this chapter to describe some of the best primary reading tests available at this time, and to give teachers helpful suggestions concerning the selection and administration of standardized tests and the application of test results.

Section I. Uses of Standardized Reading Tests

Standardized reading tests are exceedingly useful instruments of instruction and may be profitably used for a great variety of purposes. Some of the most important uses of reading tests will be described below.

Standardized reading tests used for measuring progress. The wide-awake teacher wants to know how much progress her pupils are making under her instruction. The standardized reading test makes it possible for her to obtain a reliable check of pupil growth because such a test has

been put through a scientific process of standardization until it produces the same results again and again. Since this is true, the teacher may give the same test or its equivalent forms at the beginning and end of the term and be assured that any gains made in the scores represent a measure of the amount of growth her children have made.

Many tests have several forms, so that they may be administered three or four times during the semester and not have the results appreciably invalidated because of memorization of the text. Such tests have a special advantage in that they enable the teacher to check up on the effectiveness of her teaching at intervals throughout the term, and if at any time she finds that her pupils are not making the growth that they should in any phase of their reading work she still has some time left in which to put forth effort in an attempt to bring them up to the grade standard before the end of the term. This, of course, is not the case when only one initial test and one final test are given.

Comparison of results is another use of standardized tests which should be considered in this connection. A teacher wishes to know how her pupils' achievements compare with other pupils in the same grade, the principal may wish to know how her school compares with other schools in the system, and the supervisor is interested in knowing how her entire system compares with other systems. All this is made possible by the standardized test, which provides definite standards of comparison in the way of grade norms derived from giving the test to hundreds of pupils in different cities. With this test the standing of a group or an individual may be definitely and accurately compared.

Reading tests used for classifying pupils. The procedure most commonly used in meeting individual differences is

that of grouping together pupils of like ability. Such classification is usually made on the basis of mental tests, educational tests, and the teacher's judgment based upon an intimate knowledge of the pupil's health, social development, and general aptitude. In some cases, however, such groupings are made solely on the basis of the children's reading achievement as measured by standardized tests. Whether one is justified in dividing children into general working groups on the basis of evidence furnished by reading tests alone is debatable. However, it is entirely in order for the teacher to classify her children into groups for their *reading instruction* in accordance with information furnished her by the administration of standardized reading tests. Such information may reveal the fact that some of her pupils are below standard in word-recognition, others in comprehension, others in speed, and so on. On the basis of this evidence she may group together all the slow readers and give them special exercises designed to increase their rate of reading, and likewise with each of the other groups. Of course there are individual cases which will require further diagnostic and remedial work, but in general the results of standardized *reading* tests serve very well in dividing *reading* classes into ability groupings. However, no classification of pupils should be fixed and inflexible; the most carefully made groupings will need to be modified from time to time to take care of changes in individual pupils' rates of development.

Standardized tests used for diagnosing deficiencies. Many children have special disabilities in reading which should be discovered and checked in the early grades, otherwise these are apt to become permanent habits that will impair the use they make of reading all through life. Standardized reading tests are very useful instruments for detecting these special weaknesses. Some of them are more highly

diagnostic than others; the Gray Oral Reading Test and the Gates Primary Reading Tests are probably the most analytical of the present tests in primary reading. Although these and other standardized tests are aids in diagnostic work, test results should never be relied upon as the sole source of data for this purpose. Analysis of test results must be supplemented by other means of diagnosis, such as observation, oral tracing of the process, and a knowledge of developmental history.

Reading tests used for comparing methods or materials of instruction. With the flood of new methods and materials now being placed on the market, one needs some technique to use in determining which of these produce the best results. A reliable check may be obtained by giving reading tests to "equivalent groups," using the different materials one wishes to test. According to this plan such groups must be selected as are comparable in *every factor* affecting reading ability, the only variable being the method or materials to be compared and which are different for each group. Standardized tests are administered to all groups at the beginning and end of the semester. A comparison of the gains achieved by each group will reveal which method or set of materials is the most effective. In conducting such experiments one should use a battery of several tests in order to obtain a check on the different phases of instruction in reading. A word of warning is also in order in connection with this discussion: although a check on one semester's work is enlightening, the teacher should withhold final judgment on any one method until she has followed it through at least the first three grades. Instruction in reading has so many different phases that any method cannot possibly emphasize all of them in one grade; consequently the various methods stress certain phases at different periods. So one cannot arrive at a fair

conclusion until he finds out which method *ultimately* produces the best all-round results.

Standardized tests used for motivating study. Probably no form of motivation is more stimulating to a child than that of trying "to beat his own record." There is something so intimate, so personal and fascinating in the activity of watching one's own growth, that this motive usually appeals to the most lethargic of any group. The giving of standardized tests makes it possible to furnish standard scores for each grade. A child in any one grade may compare his initial score with this standard score and see just how much he has yet to grow in comprehension or speed, or whatever the quality may be, in order to reach the grade standard. If different forms of the test are given at intervals throughout the term, he may engage in the interesting activity of actually checking off his growth as he approaches the goal. Simple individual score cards may be provided upon which the goal is plainly marked and upon which some provision is made for letting the child record his growth from time to time by drawing a line or filling in a bar or squares with colored crayons. Class graphs are also useful for this purpose, and have an advantage over the individual graph in that the child may see his growth in relation to the other members of his group.

Section II. Choice of Standardized Reading Tests

In selecting standardized tests the teacher should give careful consideration to several different factors, the most important of which are enumerated here.

Reliability. One of the fundamental requirements of a good test is that it should be reliable. It should be of such a nature that it may be depended upon to produce practically the same results when repeated under similar con-

ditions. There are several methods of determining general reliability. If such measures have been taken in preparing a test, the process is usually described in the manual accompanying the test. The teacher should look for such a statement in choosing her test, because reliability is an essential which cannot be disregarded.

Validity. A second basic requirement for a good test is its validity; that is, the degree to which it measures what it is supposed to measure. This factor is usually verified by finding the extent to which the results of the test correlate with some criteria outside the test itself; for example, correlation with the results of other standard tests which purport to measure the same thing, correlation with the teacher's judgment, correlation with the results of informal tests, and so on. The method of determining the validity of a test is also usually described in the manual.

Discriminative capacity. The test should have discriminative capacity; that is, it should cover such a wide range as to enable each pupil in a group to earn a score fairly in keeping with his individual abilities. If the scale is so coarse that practically all pupils earn nearly the same score, then it is not sufficiently refined to permit of much usefulness in distinguishing one individual from another.

Measurement of fundamental aspect. The test should measure some fundamental aspect or aspects of reading ability, such as word-recognition, speed, comprehension, ability to read in word groups, phonetic ability, and so on. Canceling or puzzling exercises which do not measure significant phases of the reading process are not worth the effort and expense of giving them.

Exact and comparable norms. The norms should be determined as the result of a wide administration of the tests in different towns or localities. They should be definite

and precise to the degree that they can be used in interpreting individual scores, and they should be in such form that they can be used in comparing the results of the given test with other reading tests.

Adaptation to pupils' capacities. The reading test must be adapted to the grade in which it is given. Both the content and the vocabulary of the test should be within the capacity and interests of the children to whom it will be administered.

Ease of giving and scoring. The test should be easy to give and to score. The instructions should be clear, concise, and easily understood. For scoring the test some device should be provided which is easy and quick to apply, thus economizing time and effort.

Desirability of two or more forms. The test should be available in at least two forms so that it may be given at intervals to the same children without danger that the results will be invalidated through memorization of the content.

Supplementary tests. If the test measures only one aspect or type of the ability to read, it should be supplemented by tests measuring other types. A test which measures oral reading tells little about the child's silent reading, a test which measures only word-recognition tells nothing about speed and comprehension, and so on through the list of different abilities. Consequently it is advisable to choose supplementary tests covering all the most important of these abilities.

Reasonable cost. The cost of a test should be reasonable; this is often a very important factor to the one choosing a test. The most expensive test is not always the best. The test which meets the other qualifications stated in this section and which is also reasonable in price is, of course, the most practical one to purchase.

Section III. Administration of Standardized Reading Tests

In giving a standardized reading test it is very necessary that certain points of procedure be observed in order to obtain results which will be comparable with the standard norms. Some suggestions are given below for the teacher who may not be entirely familiar with testing procedure.

Preparation. *Prevent interruption.* The test should be given in a quiet room free from all distractions. To prevent interruption, it is advisable to place a sign outside the door bearing a message something to this effect: "Testing. Please do not come in."

Provide sharpened pencils. See that each child is provided with a well-sharpened pencil. Have an extra supply of pencils on hand so that you can quickly replace any which are broken during the test.

Prevent copying. If there are pupils whom the teacher knows to be addicted to copying from others, these pupils should be seated away from their classmates so as to avoid any such temptation.

Clear desks. Have the children clear their desks of *everything* except their pencils.

Make children comfortable. See that all the children are comfortable; that is, that they are sitting in a comfortable position, that no one is encumbered with a heavy sweater, rubbers, etc.

Administration. *The teacher's manner.* The teacher's manner should be quiet, pleasant, and businesslike. She should in no way betray the fact that anything unusual is happening; rather should she go through the test in a perfectly matter-of-fact way, wasting no time but still not hurrying, keeping the children alert and interested but avoiding excitement.

Distribute tests by monitors. Have the tests rapidly distributed by monitors. Warn the children not to open their books or turn over the sheets, as the case may be, until they are given the signal to do so.

Explain the practice test thoroughly. Nearly all tests provide a practice exercise which is to be used in familiarizing

IN TAKING A STANDARDIZED TEST IT IS IMPORTANT THAT ALL PUPILS START AT EXACTLY THE SAME TIME

Courtesy of the Normal Training School, Trenton, N. J.

children with the technique of the procedure before the test proper is presented. The teacher should very carefully and thoroughly explain the procedure of the test through the use of this practice exercise, and should take particular care to see that each of the slower pupils understands exactly what he is to do.

Warn against asking questions. Warn the children that after they begin work on the test they are not to ask questions, since it is important that no one be disturbed by talking while the test is in progress.

Give instructions exactly and distinctly. Give all directions slowly and distinctly and in the *exact words* of the instructions accompanying the test. Do not, under any conditions, give additional instructions, such as "Sound the word" or "Do that as we did our seat work yesterday." It is often impossible to carry out the hard-and-fast instructions which some manuals impose upon the teacher in telling her that she must not say a single word while the children are working on the test. A remark to an individual who forgets to turn a page and stops working with the idea that he is all done, or to one who hesitates to deface the page by marking on it with a crayon, or to one who is perplexed over some other trivial detail is entirely in order. The instructions for giving the test must be rigidly adhered to if standard results are to be produced; but the teacher should be free to take care of any tendency to copy that may arise or to set a pupil to work again after some trivial issue has troubled him, provided, of course, that she does nothing whatever that will aid the child in the thing in which he is being tested.

Keep time record accurately. The time must be kept accurately to the second. Some teachers have been known to add an extra five or ten seconds because the children "didn't get a good start." The norms for a standardized test result from giving the test to many different groups of children under exactly the same time conditions. If the teacher allows additional time this makes the results valueless for comparison with standard norms, because even one additional second means a variation in the amount of work accomplished. It is highly desirable to use a stop-watch in giving standardized tests. Such a watch may be purchased for a small sum, and every school should be provided with at least one to use for testing purposes.

Section IV. Description of Standardized Reading Tests

A. The Gray Oral Reading Paragraphs and Check Tests

Description. *The Gray Oral Reading Paragraphs.*[1] This is the test most widely used in testing oral-reading ability. This test was devised by Dean W. S. Gray of The University of Chicago and was very carefully standardized by him. The standard norms were derived by giving the test to thousands of children in many different cities, and are entirely reliable. The content of this test consists of twelve paragraphs of increasing difficulty; it is intended for use from the first grade through the eighth. The first and third paragraphs of the test follow:

A boy had a dog.
The dog ran into the woods.
The boy ran after the dog.
He wanted the dog to go home.
But the dog would not go home.
The little boy said,
"I cannot go home without my dog."
Then the boy began to cry.

Once there was a cat and a mouse. They lived in the same house. The cat bit off the mouse's tail. "Pray, puss," said the mouse, "give me my long tail again."

"No," said the cat, "I will not give you your tail till you bring me some milk."

The Gray Standardized Oral Reading Check Tests.[2] Realizing the need of providing several forms of a test, Dean Gray has also prepared sets of material known as the

[1] The Gray Oral Reading Paragraphs. Public School Publishing Company, Bloomington, Illinois, 1928.

[2] The Gray Standardized Oral Reading Check Tests. Public School Publishing Company, Bloomington, Illinois, 1928.

Gray Standardized Oral Reading Check Tests, the purposes of which, as stated by the author, are twofold: "to secure accurate measures at frequent intervals of the progress of pupils in rate and accuracy of oral reading, and to secure detailed information which will aid in determining the specific nature of the difficulties which poor readers encounter." These tests cover four levels of difficulty, Set I being intended for the first grade, Set II for the second and third grades, and Sets III and IV for the more advanced grades. Each set contains five tests of approximately equal difficulty, and this permits of administering the test to the same pupil five times during the term. Two tests from Set I are illustrated below to give the reader an idea of the approximately equal difficulty of the two forms.

Set I, No. 3

A fox saw a hen.
The fox said,
"I see a hen.
I want her for dinner."
The hen saw the fox.
She ran fast.
She went to a tree.
The hen said,
"You did not get me, old fox."

Set I, No. 5

A cat saw a mouse.
She wanted it.
The cat said,
"Little mouse, may I eat you?"
The mouse said,
"Can you catch me?"
The cat ran after the mouse.
The little mouse got away.
The cat had no dinner.

Method of giving. The Oral Reading Paragraphs and the Check Tests are both given in the same way. In each case the teacher takes the pupil to a quiet place and has him read orally from one of the test sheets while she records his mistakes on a similar sheet which she has placed on the desk in front of her. The record consists of an account of the amount of time consumed, the number of errors made, and the kind of errors made. A code is provided which enables the examiner to record each of these types of error:

1. Gross mispronunciation
2. Minor mispronunciation
3. Omission of words
4. Insertion of words
5. Repetition of words or groups of words
6. Substitution of one word or group of words for another

Evaluation. These tests are useful in the measurement of the progress of reading, the several forms of the Check Tests making a fine supplement to the Oral Reading Paragraphs when they are used in this capacity. Their function as a measurement of the progress of an entire class is somewhat limited, in that it requires considerable time to test each child individually. However, it is impossible to test *oral* reading by any method other than that of using individual procedure; and since this test is the result of such careful and scientific preparation, the teacher who wishes to test the progress of her pupils' oral-reading ability will find this to be a highly valuable instrument of measurement. Norms are furnished for both rate and errors.

The Gray oral-reading tests are the most analytical of any reading tests which we have, and for that reason are exceedingly useful in diagnostic work. The results obtained by giving either of the tests as an initial test to poor readers or difficult cases will provide the teacher with much valuable information concerning individual difficulties and needs. Working in the light of this information she may then provide remedial instruction, giving equivalent forms of the test at intervals of three or four weeks, thus measuring progress and at the same time gleaning information that will aid her to vary her remedial work from time to time in order to meet her pupils' needs more effectively.

B. The Haggerty Reading Examination, Sigma I[1]

Description. The Haggerty Reading Examination, Sigma I, contains two silent-reading tests prepared by Professor M. E. Haggerty of the University of Minnesota. These tests too were thoroughly standardized through wide usage in several cities and states. Test 1 consists of a series of pictures, together with sentences which in each case direct the child to complete the picture or to place a mark in a certain place on the picture. The sentences increase in difficulty, the first ones being adapted to the capacity of first-grade children and the last ones being suitable for use in testing third-grade pupils. Test 2 consists of a series of questions of increasing difficulty, each of which may be answered with Yes or No. This test is included in the same booklet with Test 1, and it also is intended for use in Grades I–III. The first four items of Test 1 and the first five of Test 2 are illustrated on the opposite page.

Method of giving. The booklets are passed out to the entire class, who are given practice in doing a brief preliminary test as a means of acquainting them with the technique of the test. After this they proceed to work silently by themselves, doing as much of the test as they can within a given time. A key is provided for scoring Test 2, thus making this process a very simple matter. In Test 1 the marks the children place on the pictures furnish evidence of such an objective nature that the test can be scored easily after a glance at each picture.

Evaluation. A favorable feature of this test is that its reliability and validity have been very carefully determined. Another commendable feature is that it measures

[1] The Haggerty Reading Examination, Sigma I. World Book Company, Yonkers, New York, 1928.

comprehension through a check of *two* types of response. These features, together with its quality of being easy to give and to score, cause it to be a practical and economical instrument to use in measuring reading achievement. Its limitations are that there is only one form of the test and that it calls for a type of response not commonly used in school work.

Test 1

1. Put a tail on this pig.

2. Make an eye on the bird.

3. Put a ring around the squirrel.

4. Put a cross on the wing of the goose.

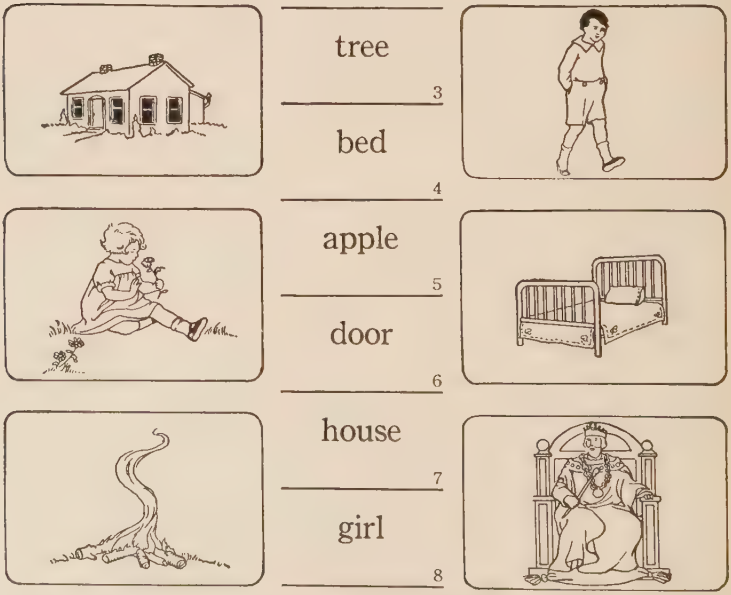
Test 2

1. Can you eat? . . . . . *No* *Yes* 1
2. Can a hat walk? . . . . . *No* *Yes* 2
3. Can a clock talk? . . . . . *No* *Yes* 3
4. Do girls like candy? . . . . . *No* *Yes* 4
5. Does a stone like to play? . . . . *No* *Yes* 5

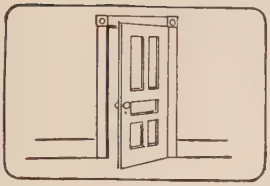
C. *The Detroit Word-Recognition Test*[1]

Description. A very clever and useful first-grade reading test was recently devised by Miss Eliza Oglesby, formerly assistant supervisor of reading in the Detroit public schools. The test is provided in three forms, all of which were thoroughly and scientifically standardized before being placed on the market. Each test consists of forty words and phrases, with pictures to correspond. The pupils read a word or phrase, find the picture to match it, and draw a line from the word to the picture. Parts of each of two pages of Form A are illustrated below:

Form A I



[1] Oglesby, E. H., The Detroit Word-Recognition Test, Form A. World Book Company, Yonkers, New York, 1928.

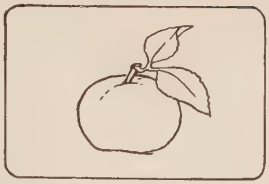


king

9

fire

10



Form A II

a boy playing in the rain

29

a girl running into a house

30

a girl running up a hill

31

a girl running down a hill

32

Method of giving. This test may be given to the entire class at one time. It is preceded by a simple practice test in which the children are familiarized with the procedure to use. After they have got the idea of drawing lines from words to the corresponding pictures they open their booklets to the test proper and work silently and undirected until the signal is given to stop.

Evaluation. The outstanding value of this test is that it is sufficiently simple to permit of its being given effectively even during the early weeks of first-grade instruction. Few tests available are suitable for use before the latter part of the first year, yet it is during the first

year that the foundation of future habits in reading is being laid. It is also in the first grade that so many radical innovations in teaching are being introduced, and for this reason teachers are particularly eager to know how these changes are affecting the progress of their pupils. This test is especially adapted to these needs, since there are three equivalent forms, which makes it possible to give the test at intervals of six weeks throughout the term, thus furnishing frequent checks of children's growth in word-recognition. The nature of the test causes it to be easy to score and easy to give. Its limitations lie in the fact that it cannot be used beyond the first grade except for diagnostic purposes with slow readers in more advanced grades, and in the fact that its measurement is confined largely to word-recognition. This test should be supplemented at the end of the year with tests dealing with other factors of the reading process.

D. The Detroit Reading Test[1]

Description. The Detroit Reading Test consists of four separate sections: Test I for the second grade, Test II for the third grade, and Tests III and IV for the upper grades. This description will be concerned with Tests I and II. Test I was prepared by Evelyn Waterbury, and Test II by Claudia Parker, both of whom are assistant supervisors of reading in the Detroit public schools. Each test consists of a four-page folder containing twelve paragraphs. In each case the test begins with a paragraph of narration and is followed by a paragraph of description and then by one of science material. This cycle is traversed four times in each form. Each paragraph is followed by two questions, one of an interpreta-

[1] Parker, C. M., and Waterbury, E. A., The Detroit Reading Test. World Book Company, Yonkers, New York, 1928.

tive nature and the other of a factual nature. There are two forms of Test I and three forms of Test II. The grade norms are based upon results obtained by giving Test I to 708 children in Detroit and by giving Test II to 1593 children, also in Detroit. A key is provided with each test to facilitate scoring. The first three paragraphs of Test II, Form A, are illustrated below.

Test II, Form A

A. We play with our bird. We let him fly around the house. When he is tired, he goes back in his cage and chirps to us to close the door.

1. Our bird is

wild tame afraid shy

2. Our bird flies around the

garden house cage door

B. It was a plain little mud hut, but it was as clean and white as a seashell, and stood in a garden plot in which grew beans, pumpkins, and other vegetables.

3. All about the house were

flowers trees vegetables leaves

4. This house was built of

brick wood mud stone

C. In the garden grew tall yellow sunflowers. In the morning they looked to the east to see the jolly face of the sun as it came up.

5. The morning was

fair rainy windy dark

6. The face of the sun was

cross ugly jolly pretty

Method of giving. Since this is a group silent-reading test, it is administered in much the same way as that described for the two previous tests. The children are first made familiar with the procedure by means of a practice exercise, after which they work silently and independently under a prescribed time limit.

Evaluation. The chief merit of this test lies in the fact that it deals with the type of reading of which classroom procedure usually consists. Another favorable aspect of the test is that it is designed to measure both speed and comprehension of silent reading. This qualification, and the fact that the test is provided in two or three forms, cause it to be an especially desirable one to give in measuring progress in the lower grades. It is doubtful whether the norms are sufficiently reliable for use in making comparisons, inasmuch as they are "smoothed norms" resulting from giving the test to a small number of children in one city. However, since the authors are requesting purchasers of the test to forward their results to them, this process of further standardizing the norms will undoubtedly be continued until entirely reliable data are available.

E. The Stanford Achievement Test: Reading Examination [1]

Description. The Stanford Achievement Test was scientifically constructed and standardized by Truman L. Kelley, Giles M. Ruch, and Lewis M. Terman of Stanford University. It consists of tests covering reading, nature study, science, history, literature, language, and spelling, designed for use in Grades II–VIII. We shall discuss only the reading test, the first sections of which are suitable for use in the second and third grades. All the tests

[1] The Stanford Achievement Tests. World Book Company, Yonkers, New York, 1928.

mentioned above are in one booklet, and in this booklet there are three tests of reading. In Test 1 the child is tested in his ability to grasp the meaning of paragraphs. The type of response required is that of completing unfinished sentences with a word that indicates the child's comprehension of other parts of the paragraph. Test 2 is designed to test his comprehension of the meaning of sentences, and consists of a series of questions which he is to answer by underlining either the Yes or No placed at the end of each line. Test 3 is intended to test the grasp of meaning of words. It consists of a series of statements, each statement being followed by several different words from which the child is supposed to select and underline the one that best completes the meaning of the sentence. The first five items of each of the tests are illustrated below.

Test 1

1. Jack got his hat and ran to the door. "Where are you going?" said his mother. "To school," said _____, and ran off as fast as he could go.
2. Bess has a dog and a kitten, but her two pets do not like each other very well. When the dog comes near, the _____ always runs away as fast as it can.
3. Ned was crying because his little pony had died. Just then a fairy appeared and asked him why he was so sad. "Because," said Ned, "my dear little _____ is dead."
4. One day a lazy owl came to the magpie and begged her to build a nice nest for her. "Why should I build you a nest?" said the magpie. "If you were not so _____, you would build it yourself."
5. A gray pussy saw a lark out in the field and thought it would make a fine dinner. "Come here, pretty lark," said the _____, "and I will show you the bell that hangs on my neck." But the wise lark said he did not care to see the _____ and flew quickly away.

Test 2

1. Do birds sing? . . . . . *Yes* *No* 1
2. Do boys eat bread? . . . . . *Yes* *No* 2
3. Do people have three feet? . . . . . *Yes* *No* 3
4. Can a horse run a mile? . . . . . *Yes* *No* 4
5. Do little girls ever laugh? . . . . . *Yes* *No* 5

Test 3

1. A teacher is a **boy family person school table** 1
2. Tears come when we **cry drink eat talk walk** 2
3. A tail is a part of a **book cat face mountain week** 3
4. An oak is a kind of **box corn egg money tree** 4
5. A wheel is part of an **arm river train wall word** 5

Method of giving. Each of these tests is preceded by an example showing how the item of the test should look when completed, although children are given no actual practice in applying the technique. The tests are given to the group as a whole under a time limit and in accordance with brief and explicit instructions stated in the manual.

Evaluation. These tests are particularly praiseworthy from the standpoint of having thoroughly received scientific treatment both in construction and in standardization. They were prepared by a group of experts who are authorities in the field of measurement, and no effort or expense was spared in preparing them in a strictly scientific manner. Another merit of this reading examination is that it contains tests designed to measure comprehension of the meanings of paragraphs and of words, two qualities not dealt with in any other of the primary tests. Other advantages are that there are two forms of the test, and that keys are provided to enable the teacher to score results easily and rapidly. The chief limitation of the

test is that it does not contain a wide enough range of items for any one grade to enable a teacher to use the results in making very careful discriminations as to the ability of different individuals in her class.

F. The Gates Team of Group Tests for the Primary Grades[1]

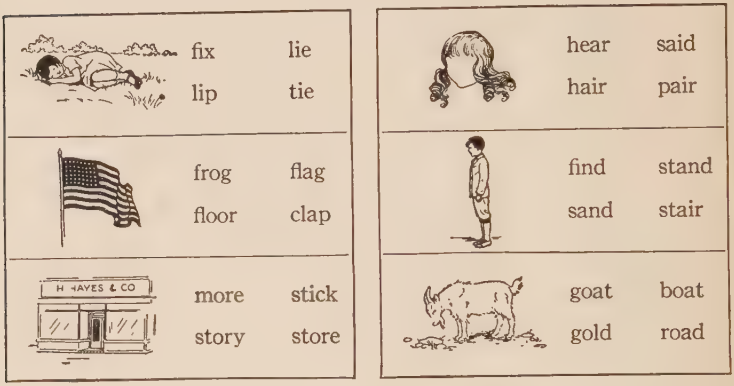
Description. Dr. Arthur Gates of Columbia University has made a distinct contribution to primary testing by devising a team of three tests, each of which measures different phases of reading ability. These tests were constructed in a highly scientific manner and were carefully standardized. Age and grade norms are provided in the form of two scales, one giving the norms for *average* achievements of classes of different intelligence, and the other showing the *highest* achievements of classes of average mentality. Dr. Gates gives very explicit instructions as to the way in which these norms may be used in interpreting the various combinations of scores that the team of tests yields.

Type 1 is designed to measure word-recognition. It consists of a series of pictures, each of which is accompanied by four words. The child is to draw a circle round the word which best represents the picture. Six items from this test are illustrated on page 346.

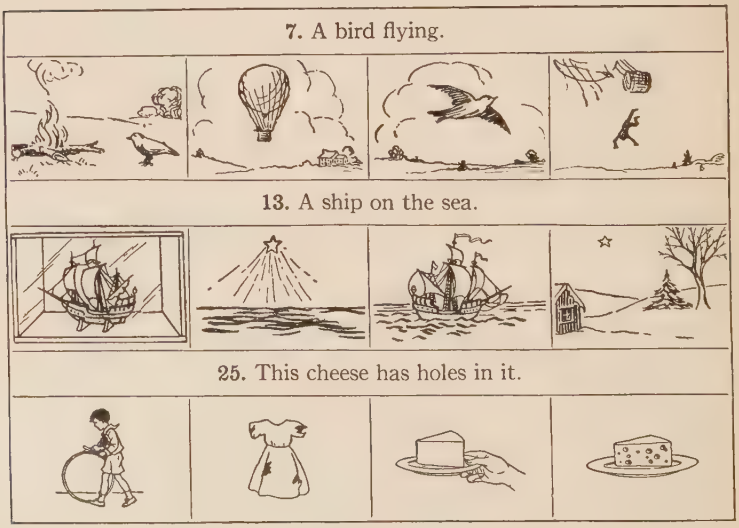
Type 2 measures ability to read and comprehend phrases and sentences. It consists of a series of phrases and pictures, one phrase to every four pictures. The children draw a ring round the picture which in each case best represents the phrase or sentence. Three items from Type 2 are illustrated on page 346.

[1] Gates Primary Reading Tests. Teachers College, Columbia University, 1926.

Type 1



Type 2



Type 3 requires ability to read and comprehend complete paragraphs. It consists of a series of pictures, each

of which is accompanied by a paragraph of text. The content of each paragraph is made up of descriptive matter relative to the picture, together with an instruction to put some further mark in the picture, the placing of which is designed to test the child's comprehension of the entire paragraph. Four items of Type 3 are illustrated below.

Type 3

11. Put an X on the farmer who is walking by the side of his horse.

15. Draw a line from the robin to its nest. You will find the nest in the tree on the left side of the picture.

12. The baby likes milk to drink. Draw a line from the baby to the milk.

16. The rabbit and the hen live on the land. The fish lives in the water. Draw a line under the one that lives in the water.

Method of giving. Each test is given to the group as a whole after they have received explicit directions concerning the procedure and have had practice in carrying it out. A time limit is imposed in order that a standard amount of work may be done. The author's instructions for giving the test are sensibly unique in that they contain the following directions for the teacher:

Inspect the work of each child; see that each works from top to bottom of columns, and that each follows the page in order. Urge children individually to try the exercises in order but do not tell them the answers. Discourage dawdling over difficult problems; tell them to try the next. Watch for children who make rings indiscriminately and tell them to make only one ring for each picture.

Such instructions do not detract from the standardization of the procedure, and are far more sensible and more possible of execution than those that warn the teacher to remain in the front of the room and not to say a single word during the duration of the test.

Evaluation. One of the meritorious features of this test is the selection of the vocabulary. Primary children are largely limited to the vocabulary of their particular method of reading, and since methods vary so widely it is difficult to prepare a testing instrument which will be entirely fair in judging children taught by different methods. Dr. Gates prepared a standard primary-reading vocabulary as the result of extensive investigation and arranged it in the order of significant demands in this field. This vocabulary constitutes the source from which he drew the content of his test, and it was the basis upon which he arranged the test in order of difficulty. Such care in regard to vocabulary content should be a distinct advantage to the test. A second valuable feature of the test is the high degree of diagnostic possibilities which it affords. The author describes a method of arranging the scores resulting from the administration of the three types of tests, together with actual grade or age and mental grade or age, in a way that reveals several different types of deficiency in reading. After clearly explaining how one may locate weaknesses by inspecting the scores, he prescribes definite procedures to use in overcoming these deficiencies.

Section V. Summary

We have discussed the fact that reading tests may be used in measuring progress, in classifying pupils, in diagnosing difficulties, in comparing methods, and in motivating study. In selecting a test the teacher should take into consideration such items as reliability, validity, discriminative capacity, measurement of fundamental aspect, exact and comparable norms, adaptation to pupils' capacities, ease of giving and scoring, desirability of two or more forms, and reasonable cost. We emphasized the following points of procedure in giving tests: avoiding interruption, providing sharp pencils, preventing copying, clearing desks, making children comfortable, maintaining a natural manner, explaining practice test thoroughly, warning against asking questions, giving instructions exactly and distinctly, and keeping a time record accurately. The following primary-reading tests were described as being the most widely used at the present time: the Gray Oral Reading Paragraphs and Check Tests, the Haggerty Reading Examination, Sigma I, the Detroit Word-Recognition Tests, the Stanford Achievement Test (Reading), and the Gates Team of Group Tests for the Primary Grades.

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CHAPTER XV

REMEDIAL WORK

Outline

I. Need and procedure in remedial work
   A. Need of remedial instruction
   B. Procedure in remedial instruction
II. Deficiencies and remedial measures in comprehension of silent reading
   A. Defective vision
   B. Lack of interest and attention
   C. Narrow span of recognition
   D. Remedial exercises
   E. Paragraph comprehension
   F. Irregular eye-movements
   G. Lack of control over words
   H. Method of word-recognition
   I. Ways to learn the words
   J. Specific cases of help with second and third grades in word-recognition
III. Deficiencies and remedial measures in the rate of silent reading
   A. Slow silent reading
   B. Reading too rapidly for comprehension
IV. How to improve oral reading
   A. Principles underlying remedial instruction
V. Summary

In the preceding chapters we have given positive suggestions to help the child in forming correct reading habits. The instruction recommended for each grade has been planned with a view to advancing the pupil in ability beyond that of the preceding grade and to prepare him for instruction given in the next grade. If the pupil completes in schedule time the work of the preceding grade, the teacher's task concerns itself with the ordinary amount of instruction which belongs to that grade. However,

there are to be found in every group some pupils who fail to make progress in the ability to read according to the objectives set up for their grade.

Section I. Need and Procedure in Remedial Instruction

Need of remedial instruction. Buswell says that certain children are backward in reading because of lack of development in some specific element, perhaps in span of recognition. The scientific method of attack is not to apply more and more of the general reading diet, but rather, after a careful diagnosis of the case, to prescribe a specific remedy for the defect.[1] Failures in the primary grades are usually due to deficiencies in reading. "In Grade I, 99.15 per cent of the pupils failing of promotion were marked as 'failures in reading'; in Grade II the percentage was approximately 90; in Grade III, approximately 70." [2] There are many kinds of reading deficiencies, and the significant fact to the teacher of reading is that the same kind of remedial instruction cannot be applied to all cases of backwardness indiscriminately. A type of instruction needed by one pupil may be of disadvantage to another. The aim of remedial work is the removal of the deficiency. To accomplish this aim there must be some analysis of the particular cause of the deficiency, diagnosis of the difficulty, and provision for a special device of instruction for each.

Procedure in remedial instruction. *Discovery of deficiencies.* The classroom teacher will find many pupils who

[1] G. T. Buswell, Fundamental Reading Habits: a Study of their Development, Supplementary Educational Monograph No. 21, p. 139. The University of Chicago, June, 1922.

[2] A. I. Gates, The Improvement of Reading, p. 4. Copyright 1927. By permission of The Macmillan Company, publishers.

show signs of backwardness in reading during the regular reading periods. She may find as many forms of deficiency as there are pupils who are deficient. Some pupils read without being able to understand what they have read, others have difficulty in recognizing new or unfamiliar words, others read slowly and laboriously, and still others read too rapidly and carelessly. The teacher notices these and other evidences of backwardness and takes further measures to study them.

Preliminary diagnosis with tests. 1. *Intelligence tests and standardized tests.* A record should be secured of the child's mental age and intelligence quotient through the use of a well-recognized individual intelligence test such as the Stanford-Binet Intelligence Scale. A study of the records of a number of standardized tests will throw much light upon the specific deficiencies of the individual and will give the teacher an idea of the type of training particularly needed.

2. *Informal tests.* The teacher can base her material for informal tests on the particular interests and abilities of the group. She may use informal tests for comprehension, for speed in silent reading, and for oral reading. A full discussion of the use of informal tests is given in Chapter XIII, "Informal Reading Tests for the Primary Grades."

The Twenty-fourth Yearbook of the National Society for the Study of Education gives the following under the heading "Steps which characterize Well-conceived Work with Remedial Cases in Classrooms":

1. Discovery of deficiency in the course of classroom activities.
2. More intensive observation and study of the exact nature of difficulties encountered in regular class work.
3. Individual examination by means of personal interview and selected standardized and informal tests.

4. Formulation of specific remedial measures which attack the cause of deficiency.

5. Initiation of regular remedial work in a manner to enlist pupil coöperation and effort.

6. Measurement with records, notes on pupil reactions, and study of progress.

7. Adjustment of work to changing needs until deficiency is removed.

Section II. Deficiencies and Remedial Measures in Comprehension of Silent Reading

Defective vision. In cases of pupils having difficulty in recognizing words the teacher should request a special examination of the eyes by the school physician. The McCallie Vision Tests can be used by the teacher herself if the school does not provide for medical inspection. Wherever defective vision occurs, the eyes should be given a thorough examination by an occulist.

Lack of interest and attention. According to the law of effect a modifiable bond is strengthened if satisfaction results and is weakened if annoyance results. The child who is slow in reading continually experiences annoyance because of his failure to cope with the mechanics of reading. Thus the act of reading brings him dissatisfaction rather than satisfaction, and he eventually loses interest in the subject and sometimes acquires a positive distaste for it. So the first step in remedial instruction often resolves itself into the task of reviving the child's desire to read through some special appeal to his interests. Miss Zirbes gives "inappropriate abiding attitudes or sets" as one of the most serious causes of reading deficiencies.[1] She says:

Sound guidance should discover and arrest such tendencies at their inception by making due provision for individual difference

[1] Laura Zirbes, "Attacking the Causes of Reading Deficiencies," *Teachers College Record*, June, 1925.

in ability and interests. The failure to utilize existing interests as a basis for reading and the lack of a definite program of interest-building and attitude-conservation are here revealed. Certain reading procedures which build skills at the expense of attitude have been prevalent and they too often eventuate by defeating their own ends.

A little girl of six years who was a remedial case in reading had a great dislike for reading, owing to the impression that reading consisted of sounding words. A teacher from another school which the child attended asked her to come to her room in the evening and "read stories," as she expressed it, to her. First the teacher read simple material aloud, then she had the child continue for a sentence or two, helping her over the difficult parts. So they read together, the little girl reading more and more and becoming more interested and happy as she grew in ability. One evening the teacher said to her, "Why, Dorothy, you do like to read, don't you?" "Oh," answered Dorothy, "this isn't reading! We have to read at school."

Lack of interest frequently comes with too difficult material, hence the problem to find material simple enough for the child to master and at the same time of interest. The library periods where the children make their own selections provide an opportunity for the child to reach his own level and select the thing that interests him. If the teacher can talk with individual children about the books or stories selected and give assistance in reading, she will do much toward awakening interest and keeping it alive. If in class discussions the children can give short reports on what they have read, even if it is only a sentence, they feel that they are actually contributing. The teacher should remember to commend, whenever possible, the effort which these children make. Sometimes a book or

story may be read as a continued story for content silent reading and be used later for oral reading, the teacher stressing enunciation and clear expression. After that it may be used for dramatization, the children taking the parts of characters. Each child has to prepare his part and read it to the class before attempting to dramatize it. Chapter IV, "Reading Motives," gives suggestions for improving interest through a real purpose for reading.

Narrow span of recognition. The span of recognition, or perceptual span, is the average quantity of an individual's perception during a fixation pause in reading. Some persons grasp more material than others during a fixation pause. Rapid readers possess wide perceptual spans, and immature readers make several fixations in recognizing a word. Indeed, if a child recognizes one word at a fixation instead of a short phrase, his comprehension and rate will be slow. Sometimes a narrow span of recognition is caused by too much drill on single words in the primary grades or by too much emphasis on phonetic analysis. Emphasis on words and parts of words instead of phrases focuses the attention of the child on words instead of on larger units.

Gates, in "The Improvement of Reading," attacks the question of the improvement of comprehension through word-recognition, phrase and sentence comprehension, and paragraph comprehension.[1] First he lists as deficiencies in phrase and sentence comprehension such general factors as low intelligence, lack of experience of life, insufficient or inadequate training in reading in general, and lack of interest.[2] Then he adds, as the most evident causes of deficiency in phrase and sentence comprehension:[3]

[1] A. I. Gates, The Improvement of Reading, p. 70. Copyright 1927. By permission of The Macmillan Company, publishers.

[2] Ibid. p. 90.

[3] Ibid. pp. 90–95.

1. *Lack of reading vocabulary and difficulty in word perception.*
2. *Overemphasis in vocabulary study.* A teacher must not overemphasize word study, for comprehension of phrases and sentences is hampered by too much drill on words as well as by too little. The idea that children should have a very large vocabulary before attempting any reading of large units leads to word readers and hence to narrow recognition spans. Sentences should be introduced early that this danger may be avoided.

Overemphasis on phonics and other analytical drill. Some investigators in reading have shown that overemphasis on phonics and analytical drill early in the child's reading experiences has led to such serious difficulties as the habit of progressing in very small units, thereby inhibiting development of speed; the habit of too explicit articulation, thus retarding speed; the habit of looking directly at each word during the process of pronunciation, thus encouraging a very narrow eye-voice span; the habit of reacting primarily to the pronunciation stimulus and disregarding comprehension.

Overemphasis on correct oral reading. Too much emphasis on correct oral reading may result in inadequate development of skill in comprehension. Reading may become a motor exercise instead of a comprehension exercise. However, if thought-getting is emphasized, this difficulty may be avoided.

Overemphasis on reading large sentence or paragraph units in the beginnnig. This, Mr. Gates says, may seem paradoxical, in view of the preceding points. However, too strenuous efforts on the part of the teacher to secure comprehension of large units from the start introduces a complexity of printed units which may be confusing to the child, who finds the words, punctuation marks, sentence division, and eye-movement altogether unfamiliar. Under such conditions the child may resort to subterfuge,

and this may seriously handicap the development of reading abilities.

Lack of training in the recognition of thought units. Some help must be given children to assist them in perceiving words in natural thought units. Training in phrasing leads to improvement in this respect.

Lack of encouragement in depending on the context in efforts to recognize unfamiliar words. The child should feel that the context is one means of word-recognition as well as phonetic or other means of attack.

Interruption in training. If the child's training is interrupted during a critical stage in his development, it may result in a serious handicap to him. Sometimes a child is transferred from one school to another that uses a basic method of reading different from the one to which he has been accustomed. Under these conditions the new vocabulary may demand so much of the child's attention as to distract from his comprehension. Absence from school or being placed in a group which is working upon a different phase or a more advanced stage of word analysis is also apt to interfere with the development of the child's techniques of comprehension.

Lack of proper materials and methods. There must be practice material, good reading matter, questionings, and other checks of comprehension of material to result in the development of these skills.

Remedial exercises. *Informal tests.* Informal tests of the following types may be used to widen the span of recognition and hence improve the comprehension:

Question-and-answer	Completion
True-False	Multiple-choice
Yes-No	

For further discussion of this topic read Chapter XIII, "Informal Tests."

Action and direction sentences. The teacher may expose phrases or sentences which contain words of a known vocabulary in either of three ways: written on the board, typed on paper, or by the flash-card procedure. The child must do immediately what the direction tells him to do. Some of the following directions were typed on slips of paper and used by a second-grade class in the University of Chicago Elementary School. The class enjoyed the activity and the game element. As may be seen, often the directions were those which were really needed:

You may go quietly.
Stand up.
Put your chair away.
Put the pencils away.
Put the flowers in the basket.
Sharpen your pencil.
What is in your pocket?
Take off your coat.
What is on your chain? Let me see it.
What kind of pin is that on your coat?
Erase the board.
Come here. Sit down at my table.
Water the bulbs. Not too much water.
Put on your sweater.
Get your gym bag.
Draw a picture of your pet.
Do not sit on the floor.
Are you going to read?
Write and tell me how you like your book.
Is your story good? Tell me about it.
Did you fix the books on the reading table?
What time is it?
Are you going to work?
Yes, you may get a drink.
Are your hands clean? Then you may go to the reading table.
Turn on the light.
Take off your hat.

When is your birthday? Come and tell me.
Put away your book.
Please do not read so loud.
Who takes care of the books in the other room?

See, also, Chapter IX, pp. 184–217.

Short-exposure exercises. Short-exposure drills are valuable aids in developing two reading abilities: (1) the ability *to see* an entire phrase at one glance and (2) the ability to *comprehend* an entire phrase at one glance. Flash-card training is valueless, however, unless the results of such practice are transferred to the normal reading situation. The teacher should supplement the flash-card drill with practice in phrasing and rapid reading in readers, and encourage the child to apply the effects of his flash-card drill to this more normal type of reading.

Buswell warns against the use of exposure exercises for regular reading work.[1] He says that they should be used only as specific training exercises to correct the lack of development in some particular element. The phrases or groups of words may be printed on slips of oak tag board for the first grade, and later they may be replaced by small cards. Brooks says:[2]

The cards are flashed for one fifth of a second before two or three pupils. After each exposure each pupil writes down what he saw. If he recognizes nothing, he draws a horizontal line (————————) to indicate that fact. A record is kept of the number of exposures required to recognize each phrase. The average number of words seen per exposure is found for each set of phrases. By testing a few good readers of the class first, the teacher can know their approximate recognition spans and thus

[1] G. T. Buswell, Fundamental Reading Habits: a Study of their Development, Supplementary Educational Monograph No. 21, p. 141. University of Chicago Press.

[2] F. D. Brooks, The Applied Psychology of Reading, p. 175. D. Appleton and Company, New York.

tell if the slow readers have narrow spans. The teacher should practice flashing the phrase cards so that he will use a uniform rate. The phrase card should be kept steady and free from any motion. A good plan is to place it against a book or other stationary object and conceal the phrase by placing a blank card in front of it. The phrase is exposed by quickly slipping the blank card aside and then replacing it. In this way there is no eyestrain or confusion due to any slight motion of the phrase card.

Paragraph comprehension. "As a matter of fact," says A. I. Gates, "there is scarcely a limit to the types of content that may be utilized in suitable paragraph form. Any content adaptable to the ability or interest of the pupil may be organized in well-knit passages or episodes. For remedial work it is more important than usual to secure content that makes a real appeal to interest."[1] He recommends for successful use in this respect the following materials:

1. Stories, poems, and readers of recognized merit.
2. Stories of greater length such as "Little Black Sambo," "Peter Rabbit," "Perez the Mouse," etc. These may be accompanied by the appropriate types of guiding comprehension exercise.
3. Miscellaneous printed materials from children's pages in newspapers, magazines, etc.
4. Especially prepared materials: riddles, seat work related to reading.
5. Informal tests.
6. Directions to be executed. These may be of many types, as,

a. Directions to cut and paste.
b. Directions to draw, illustrate, and color.
c. Directions to write signs or posters.
d. Directions to rearrange a group of objects, real or pictured.
e. Directions for carrying on activities: playing games or making things.

[1] A. I. Gates, The Improvement of Reading, p. 72. Copyright 1927. By permission of The Macmillan Company, publishers.

A. How to make a Boat

Take a board ten inches long and four inches wide, nail a stick seven inches long to the center. Fasten a three-inch stick like a kite across this stick. Paint your boat red. Paint the sticks yellow. Cut a sail three inches wide and seven inches long. Fasten the sail to the stick. Your boat will sail in water.

B. How to make Sugar Pop Corn

Pop two quarts of corn.
Put the pop corn into a big pan.

Next!

Put two tablespoons of butter,
Two cups of brown sugar,
and one-half cup of water
in a saucepan.
Boil for sixteen minutes.

Then!

Pour it over the corn and
Stir well.

Samples of guiding comprehension exercises in well-known books. The following tests show how a teacher in the third grade in the Elementary School of The University of Chicago assisted the pupils to improve their comprehension.[1]

Tests to check comprehension on "Heidi," by Johanna Spyri. The pupils were to read Chapter XII silently and answer the following questions by writing:

Tests to Check Comprehension

Why were the people in the Sesemann house afraid?
Who looked down from the walls in the hall?
How was the door fixed at night?
Why did Johann and Sebastian stay up all night?
What did they see?

[1] These tests were prepared and given by Miss Violet Millis of the University of Chicago Elementary School.

Why did Herr Sesemann go home?
Who came to help Herr Sesemann the night he came home?
Who was the ghost?
What was the matter with Heidi?
Where did the doctor say Heidi should go?

Tests to check comprehension on "Toomai of the Elephants," by Kipling. The pupils were to read pages 217–221. They were tested by the following tests:

Put a cross before the correct sentence in each group of three;

1. Kala Nag was an Indian.
2. Kala Nag was a snake.
3. Kala Nag was an elephant.

1. At the beginning of this story Kala Nag was a baby.
2. At the beginning of this story Kala Nag was very old.
3. Kala Nag was twenty years old.

1. Kala Nag lived in England.
2. Kala Nag was African.
3. Kala Nag lived in India.

1. Before Kala Nag was twenty-five he had to work very hard.
2. Before Kala Nag was twenty-five the soldiers did not make him work too hard.
3. Before Kala Nag was twenty-five he had had very few experiences.

Different types of tests on "The Story of the Earth," by C. and E. Washburne. These tests were formulated by the teacher to require a minimum of writing, and consisted of several kinds:[1]

[1] Tests taken from the Reading Reports, Records of the University of Chicago Elementary School for the years 1924–1925.

Multiple-choice

Read from page 45 to the end of the chapter.

Put a mark like this ( ) in front of the sentences that say the correct thing (one out of each group of three).

1. Lately men, in digging through earth and rocks that have been formed since the coal age, found
   - *a.* Great beds of colored earth
   - *b.* Black rock
   - *c.* Buried trees
2. In going into a coal mine we find that layers of coal
   - *a.* Run very irregularly
   - *b.* Run up and down like trees in a forest
   - *c.* Are cut through by the elevator as it descends
3. The miners in the coal tunnels
   - *a.* Carry little lamps on their heads
   - *b.* Carry torches in their hands to light their way
   - *c.* Have little fires spaced along the tunnels to give light
4. The coal is carried out to the elevator
   - *a.* In auto-trucks
   - *b.* In wheelbarrows
   - *c.* In little cars

Yes and No

Read from the middle of page 62 to the end of the chapter.

Write the word "Yes" or "No," whichever you think is correct, after each question below:

1. Was the dinosaur strong enough to kill other animals? _____
2. Did the fingerwing kill large animals? _____
3. Did the fingerwings look like ghosts while picking the bones of animals already killed? _____
4. Was there a lot of strength (or force) in their wings? _____
5. Did the footprints of these animals in the mud by the river harden and keep their shape? _____
6. Thousands of years after this did these large creatures still keep on living? _____

7. Did the climate have anything to do with the lack of food for these animals? _____
8. Did the smaller creatures die too? _____
9. Have the scientists (men who study about these things) found the bones of these animals in rock and their footprints in clay or mud? _____
10. Have the scientists given up hunting for more bones of these creatures? _____

Matching

Read from page 55 to the middle of page 62.

Read the following numbered sentences. They describe the animals named below. After the name of each animal put the number of each sentence that describes it.

1. Its wings are leathery.
2. It is as large as a rhinoceros.
3. He walks like a rhinoceros.
4. Its neck is enormously long.
5. His skin is scaly, and his teeth are long and sharp.
6. He growls like the croaking of a giant frog.
7. Its wings are as wide as three men would be tall if they stood on one another's shoulders.
8. It is harmless and half-witted.
9. He carries a row of spikes down his back and even sharper ones down his tail.
10. Its head is very small.
11. It looks like a large toad on its hind legs.
12. It is the biggest animal that has ever lived in the world.
13. It looks like an enormous bat.
14. It looks like a kangaroo.
15. It keeps its head down near the ground.
16. Its tail is like that of a crocodile.

Fingerwing — **Double-beam**
Lizard-tooth — **Flesh-eating dinosaur**
Plated lizard

Irregular eye-movements. Rapid reading is usually characterized by regular rhythmical eye-movements across

the page. The progression is continuous and fairly uniform. For further discussion of eye-movements read Chapter V, "Eye-movements in Primary Reading." Irregular eye-movements may be improved by

1. Quick-exposure exercises of sentences and phrases.
2. Keeping the material suited to the child's level of ability.
3. Preparing interesting typed selections (either copied from readers or stories, or adapted) in which the lines are much farther apart than in ordinary printed matter. The child should be told how to move his eyes from the end of one line to the beginning of the next without stopping to look at any of the words in the next line. The following form of training was used by Gray: [1]

> ... The child read interesting selections typewritten in three forms. In Form I the words were typed five letter-spaces apart; in Form II they were grouped in thought units, with the units themselves five spaces apart; in Form III the words were typewritten one letter-space apart as in ordinary print. In Form I the child was instructed to read the words in order without looking to the right or left of a given word until it was recognized. In all three forms close attention was given to seeing the words in order. See, also, Chapter IX of this book, pp. 184–217.

Lack of control over words. Gates attributes deficiencies in word-recognition to five major causes: inferior mental capacity, lack of general experience or of experience in using oral English, study limited to unusual vocabulary, lack of training in word-recognition, and inappropriate methods of perceiving words and learning new words.

Method of word-recognition. An absolute dependence on phonetics as means of word-recognition is not advisable, but a use of phonetics combined with the context

[1] Quoted by F. D. Brooks, in "The Applied Psychology of Reading," p. 208. D. Appleton and Company, New York.

will bring about greater independence in word control. A versatility of attack is recommended, as no one particular method is entirely adequate.

Ways to learn the words. The following means are advised for use in learning the words:

Picture-dictionary word cards
Execution exercises
Matching games
Different word games
Picture-checking tests

Specific cases of help. The following are specific ways in which to help pupils in the second and third grades in word-recognition.

1. The second-grade group needed a larger vocabulary and ability to attack new words. The habit for reading for content was well developed in each child, but he felt powerless to read the material of his liking. The inability to master the ever-increasing number of new words necessary for getting content was the main difficulty.

a. Time apart from the reading period was used to help the child to get cues in a word that would enable him to recognize more than one syllable and get the word correctly.

To clear up a difficulty like the following: A child read this sentence: "This made the baby lion on her back fall off." The child read it "This made the baby lion on her back feel awful." The child had difficulty with interpreting the story about the elephant because she had not read that the lion fell. Her substitution did not change the meaning of the particular sentence so much as it confused her in getting further content.

b. Help in dividing words into syllables was given to the group.

c. Often the teacher took each child individually and gave him the help he needed.

d. More opportunity was given to the child to choose his own reading material. A record was kept of the reading done by each child.

e. Group-reading under the teacher's supervision was occasionally done and was mostly silent reading.

f. The valuable means of word-recognition with this group seemed to be (1) Finding a word within a word. (2) Taking initial sounds from printed lists of words on charts beginning with the same initial sound. (3) Getting words from contexts.

2. Words attacked through context and through perceiving familiar parts. One group in a second grade was doing satisfactory work except in the case of certain individuals who had to be watched and to be encouraged to exercise more independence in working out new words. They had the habit of coming for help before they had made much effort themselves, and as a result were asking for some six or eight words in the half-hour reading period. They were shown how they might read the rest of the sentence in which the unfamiliar word appeared and thus get the word from the context; they were shown how some long words (for example, "goat herd") might be broken up into familiar parts. With these few suggestions they lessened their trips to the teacher to a marked degree.[1]

Individual records of pupils who have made the reading adaptation.[2] One evidence of the reading adaptation is that the pupil reads without focal consciousness of each word or other element of the discourse.

—— reads every animal story he can find and urges his friends to read stories because he has enjoyed them.

—— reads at home and during free periods. Answers all questions on content intelligently.

—— reads continually and is able to report intelligently on all questions bearing on content. Reads to a doll when obliged to stay in at noon.

—— must be called several times when reading. Reads whenever she finds a few minutes to spare. Is observed telling children about her book. Laughs aloud at amusing situations.

[1] Taken from the Reading Reports, Records of the University of Chicago Elementary School for the years 1925–1926. Miss Menier, teacher.

[2] Taken from the Reading Reports, Records of the University of Chicago Elementary School for the years 1925–1926. Miss Polkinghorne, teacher.

Section III. Deficiencies and Remedial Measures in the Rate of Silent Reading

Slow silent reading. A slow rate of silent reading is a very common deficiency. Many of the factors which influence comprehension tend also to influence rate. The most important causes of a slow rate are defective vision, slow comprehension, lack of interest and attention, lack of practice in reading, bad habits of eye-movement, narrow span of recognition, vocalization and lip-movement, and inadequate control over words.

Lack of practice in reading. Much reading of easy material is one of the most effective means of increasing rate. When pupils have to stop frequently to ask for words, they become discouraged and feel a lack of self-reliance. The primary aim is to get such children to the state where they want to read; hence as many difficulties as possible are removed. Perhaps they are not asked to read orally, and at first are told all the words they ask for. They are encouraged to guess at the words they do not know, guided by a sense of the meaning. They should do a great deal of silent reading of material of increasing difficulty and, in the beginning, with very little check on speed or comprehension. The effort should be centered on getting them to forget difficulties through extensive absorbing reading, with the idea that many difficulties will be overcome in an unconscious way. They should be given easy books or even books which they have read the year before and liked, and the material should be kept simple for a long time.

Vocalization and lip-movement. Exercises to improve comprehension also tend to break up habits of vocalization and lip-movement. The remedies suggested for recognition of words and phrases also aid in improving this

deficiency. If the children can be made to see how lip-movement really hinders their reading, and themselves make a conscious attempt to avoid such habits, it will be an effective means of improvement.

Means of increasing rate. The following kinds of exercises have been discussed in regard to the improvement of comprehension. They also aid in the improvement of rate.

1. Informal tests.
2. Phonetic analysis (this is an effective means if it is not carried to the extreme).
3. Quick-exposure exercises of phrases.
4. Word drills.

Reading under pressure of time control. The following outline shows different situations which may be used in getting children to read under pressure of time control.

1. Finding answers to thought and questions on fact under pressure of time control leads the children to skip the irrelevant parts and to select the most important points.
2. Competitive reading of short easy selections.
3. Timing longer selections read at home, in the library, or in study periods. Comprehension may be tested by questions.
4. Rapid silent reading for the following purposes under the pressure of time control to increase rate and comprehension:
   a. Ability to get the main thought of a selection:
      (1) The pupils read silently under time conditions an assigned unit or selection in order to answer a pivotal thought question.
   b. Ability to reproduce a series of incidents in response to questions:
      (1) The pupils read silently for one minute (later the time can be increased to two minutes).
      (2) The pupils close their books and respond to questions asked by the teacher.
   c. Ability to interpret what is read and to follow directions:
      (1) The pupils read silently for one minute (later the time can be increased to two minutes).

(2) At the end of the reading the pupils carry out the directions given at the end of the selection.

d. Ability to reproduce:

(1) The pupils read silently for one minute (later the time can be increased to two minutes).

(2) The teacher calls on a slow reader to tell what he has read; she next calls on a medium reader and then on a fast reader. Thus she makes provision for all types of readers.

e. Ability to do independent thinking about the material read:

(1) The pupils read silently under time conditions.

(2) The teacher asks such questions concerning the content as require independent thinking on the part of the children.

Reading too rapidly for comprehension. When silent reading becomes too rapid for adequate comprehension, it degenerates into gorges of reading; and when such rapid reading occurs, there should be a sufficient check-up of comprehension. The following case illustrates too rapid reading: Two boys in the first group of a third grade were reading more rapidly than the others. The first boy was reading rapidly but steadily and was absolutely absorbed. The second was reading more rapidly but not so steadily. He opened his book and began with the left-hand page; took the page in three jumps; read the right-hand page, turning it over and winding his way down, so to speak; read the next page; turned a page; skipped the next entirely, the next also; read the next; and so on. Either he cared nothing for the book, or he was following a particular thread of the story in which he was interested. Finally he finished with a dash the last hundred pages of the book in a twenty-five-minute period. When he was tested orally on the last hundred pages, it was found that he had missed all the major points of the story. He was given "How the World is Clothed," by F. G. Carpenter,

with certain specific parts to read. The result was that his comprehension improved and bad habits in reading were corrected before they became established.

Section IV. How to improve Oral Reading

Principles underlying remedial instruction. Many of the defects in oral reading are the same factors which cause deficiencies in silent reading. Audience-reading is one of the most effective means of improving oral reading, especially if a child has had an opportunity to prepare at home or in the study period what he is to read to the group. Material relating to this topic is found in Chapter III, "Silent and Oral Reading," and in Chapter IX, "Reading in the Second and Third Grades." In addition the following suggestions are recommended:

Drills on words and phrases
Phonetic analysis
Providing a strong motive for reading
Work on speech defects with phonetics

F. D. Brooks gives the following "Principles underlying Remedial Work in Oral and Silent Reading:" [1]

1. Interest and attention are indispensable aids.
2. Division of the class into small groups according to their reading defects is an essential means of effective remedial work.
3. No one method is suited to all cases.
4. The unit of meaning is the phrase — not the individual word.
5. A well-balanced reading program is desirable.
6. At short intervals give informal tests of rate and comprehension to stimulate the child. At the end of the term or year standardized tests should be given to determine accurately the amount of improvement made during the term or year.

[1] F. D. Brooks, The Applied Psychology of Reading, pp. 186–188. D. Appleton and Company, New York.

Section V. Summary

This chapter deals with the three outstanding phases of remedial work: Deficiencies and Remedial Measures in Comprehension of Silent Reading; Deficiencies and Remedial Measures in the Rate of Silent Reading; and How to Improve Oral Reading Deficiencies. Causes and remedial suggestions and exercises were given for each of these three phases of reading. Improvement in comprehension and rate of reading may be gained by the use of informal tests and quick-exposure exercises, abundance of easy reading material, phonetic analysis, and reading under pressure of time control. Audience reading is suggested as one of the most effective means of improving oral reading.

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1. My Progress Book in Reading
   (For Beginners) E. N. Johnston.
   Amer. Ed. Press - N. Y. & Columbus.
   1 - 2nd - 2 for 3rd and etc. → 5 for 6th grade

2. Revised Study Period Projects
   Elda L. Merton
   Laidlaw Bros. Chicago & N. Y.
   Make their own booklets -
   --illus. stories read.

1. Peacock Pie Walter Delamare
2. This Singing World Louis Untermeyer
Intermediate grade.
3. Little Folk Lyrics - Frank Sherman
4. Child Rhymes - James W. Riley
5. When We were Young - A. A. Milne
6. Now We are Six "
7. Lullaby Land Eugene Field
8. With Trumpet & Drum "
9. Poems of Childhood "
10. Songs " "
11. 1st Book of Poetry Emily Baker
12. Children's 2nd Book of Poetry "
13. Cambridge Book of " Kenneth Grahame
14. Book of Verses for Children E. V. Lucas
15. A parody Anthology - C. Wells
16. Such Nonsense. "
17. Golden Number Kate W. Wiggins
18. Posy Ring "
19. Poems by a Little Girl Hilda Conkling
20. Shoes of the Wind "
21. Janitors Boy & Other Poems Natalie Kane